MAURITIUS

ANNUAL REPORT
ON THE
MEDICAL & HEALTH DEPARTMENT
1930

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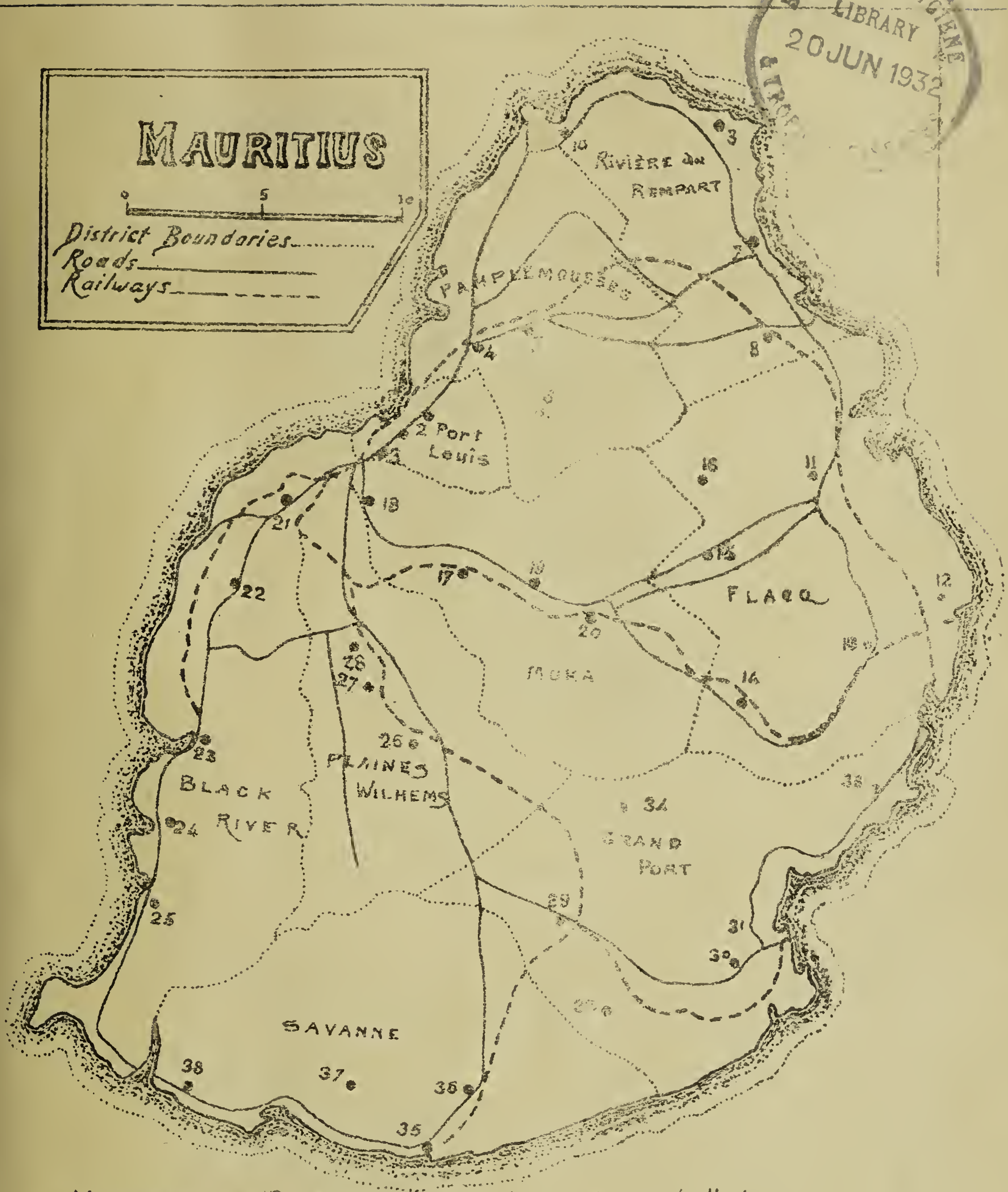

HOSPITALS & DISPENSARIES are shown in the Map by Numbers as indicated below.

PORT LOUIS

Civil Hospital	1
Eastern Suburb (St François)	2
Western Suburb (Bell-Village)	3

PAMPLEMOUSSES

Terre Rouge	4
Pamplemousses (Village)	5
Long Mountain (attached to Hospital)	6

RIVIERE DU REMPART

Poudre d'Or (attached to HOSPITAL)	7
Ravin	8
Grand Gaube	9
Grand Bay	10

FLACQ

Flacq Hospital	11
Trou d'Eau Douce	12
Rivière Sèche	13
Sébastopol	14
St. Julien	15
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MOKA

Moka Hospital	17
Pailles	18
St. Pierre	19
Quartier Militaire	20

BLACK RIVER

Petite Rivière	21
Bambous	22
Tamarin	23
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PLAINES WILHEMS

Curepipe	26
Vacoas	27
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GRAND PORT

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COLONY OF MAURITIUS

ANNUAL REPORT

ON THE

MEDICAL AND HEALTH DEPARTMENT

1st JANUARY TO 31st DECEMBER, 1930

Administration

Dr. Y. Cantin, Government Medical Officer, Grand Port, was appointed as Acting Superintendent, Civil Hospital, on 1st September 1930 in the room of Dr. A. Célestin who was transferred as temporary and provisional Government Medical Officer, Grand Port.

On the 14th August 1930, Dr. H. Madge, Acting Resident Medical Officer, Civil Hospital, was appointed temporarily and provisionally as Police and Prison Surgeon vice Dr. E. Rama transferred to Civil Hospital as temporary and provisional Resident Medical Officer.

Dr. S. Piarroux, Government Medical Officer, Rivière du Rempart, was on leave from the 17th January 1930 to 16th November 1930. During his absence, Dr. F. Bouloux of Civil Hospital was detailed to perform duties as Acting Government Medical Officer, Rivière du Rempart. On the 20th May 1930, private medical practitioner Dr. H. Joomaye was temporarily appointed to the Medical Service of the colony and was posted at Civil Hospital, as Resident Medical Officer in the room of Dr. Bouloux.

On Dr. S. Piarroux's resumption of duty on the 16th November 1930, Dr. F. Bouloux was appointed Acting Resident Medical Officer, Civil Hospital, and the temporary appointment of Dr. H. Joomaye terminated.

Dr. A. C. d'Arifat, Medical Officer in charge Hookworm Branch was on leave from 27th March to 5th November 1930. A private practitioner, Dr. L. J. Mc Gregor acted during his absence on leave.

Dr. A. C. d'Arifat spent a part of his leave in Italy and Sardinia in making a detailed study of certain of the anti-malarial works carried out in Italy and Sardinia by the Italian Government in cooperation with the International Health Board of the Rockefeller Foundation. Part of the expenses incurred by Dr. d'Arifat in this connection were defrayed from the Scholarship Fund.

Dr. W. R. Dupré went on leave on 2nd August 1930. He was replaced by Dr. H. Mollière, Assistant Medical Superintendent, Mental Hospital, and Government Medical Officer, Black River.

Mr. Maya, Assistant Superintendent, Bacteriological Laboratory, retired from the service on 1st October 1930.

The probationary appointment of Dr. E. Rama terminated on 31st December 1930.

2. The professional staff of the Department on 31st December was as follows:—

Director: J. Balfour Kirk, M.B., Ch.B., D.P.H., D.T.M. & H.

Medical Assistant to the Director: Evariste de Robillard, M.R.C.S., L.R.C.P.

Medical Officer of Health, Port Louis: E. R. Gilmore, M.B., Ch.B., D.P.H., D.T.M.

Medical Officer of Health, Plaines Wilhems: F. J. R. Momplé, M.B., C.M., D.P.H.

Superintendent, Bacteriological Laboratory and Government Analyst: L. G. Barbeau, M.B.C.M., D.P.H.

Sanitary Warden (Northern Districts): Vacant—Duties performed by Dr. E. R. Gilmore.

Sanitary Warden (Southern Districts): A. G. Masson, M B., Ch.B.

Port Health Officer: L. M. J. Raymond Pilot, M.B., B S., M.R.C.S., L.R.C.P., D.T.M. & H. (also assisted the M. O. H. Port Louis).

Superintendent, Mental Hospital: J. D. Dyson, M.B., B.S., D.P.M., M.R.C.S., L.R.C.P.

Assistant Superintendent, Mental Hospital: H. Mollière, M.B, Ch.B., (temporary and provisional).

Superintendent, Civil Hospital; Y. Cantin, M.R.C.S., L.R.C.P., D.T.M.

1st Resident Surgeon, Civil Hospital: L. N. René Comty, M.B., B.S., M.R.C.S.

2nd Resident Surgeon, Civil Hospital: E. Rama, M.D, (Paris), Médecin Colonial, Sanitaire Maritime, Médaille d'honneur des Epidémies.

Superintendent, Victoria Hospital: Louis Rathier du Vergé, *M.C.*, M.R.C.S. L.R.C.P.

Resident Medical Officer, Victoria Hospital; V. Pierre Goupille, M.D. (Paris),

Assistant Resident Surgeon, Victoria Hospital; Ralph Mayer, M.B., B.S.

Police and Prison Surgeon Port Louis: H. Madge, M.B., B.S., L.R.C.P., M.R.C.S.

Government Medical Officer, Black River: H. Mollière, M.B., Ch.B., (temporary and provisional).

Government Medical Officer, Plaines Wilhems; J. J. Maingard, L.M.S., S.A. London, Médecin Colonial (Paris).

Superintendent, Leper Hospital : J. H. André, M.R.C.S., L.R.C.P.
Medical Officer i/c Hookworm Branch : A. C. d'Arifat, M.R.C.S., L.R.C.P.
Radiologist : W. R. Dupré, L.R.C.P. & S, L F.P. & S. (on leave)—Dr. H. Mollière, M.B., Ch. B. (acting).

DISTRICT MEDICAL OFFICERS

(Government Medical Officers having charge of a district hospital and of all the dispensaries in their district).

Pamplemousses : J. H. André, M.R.C.S. L.R.C.P.
Rivière du Rempart : S. Piarroux, L.R.C.P. & S., L.F.P. & S.
Flacq : R. Laventure, M.D. (Montpellier, France).
Grand Port : A. Célestin, M.R.C.S., L.R.C.P.
Savanne : J. Cantin, M.D. (Paris).
Moka : R. Pilot, M.D. (Lyons).

LEGAL

3. No ordinances affecting the Public Health were enacted during the year.

FINANCIAL

4. The revenue of the Colony for the financial year 1929–30 was...	Rs. 14,483,467.89
The expenditure on Medical and Sanitary Services out of the Revenue was	1,833,725.48
The expenditure on Medical and Sanitary Services from the Improvement and Development Fund was	130,644.97

II.—Public Health

5. The mortality rates of the Colony have continued to rise. The year began badly. Torrential rains occurring on December 29th 1929 and on the following few days resulted in the flooding of large areas, the destruction of anti-malarial works, and the total wreckage of the intake of the principal water supply to Port Louis. Considerable material damage was also done. The sugar cane, fortunately, escaped much harm, but there was extensive damage done to property, and small holders had their crops ruined in certain flooded localities. The large circumvallatory drains constructed on the hillsides for the protection of Port Louis from storm waters were badly breached and low-lying parts of the town were flooded to a depth of several feet. The remarkable feature of these floods was that they caused no direct loss of life, though several persons narrowly escaped being drowned in their homes. The storm water in Port Louis District carried very large quantities of rubble into the streams which cross the town. Where those streams pass through the urban part of the city they have been canalised, and paved and walled with masonry. Much of the masonry was carried away or otherwise damaged.

6. The general economic situation did not improve, in fact, it deteriorated. We have experienced therefore, all of the factors which increase the morbidity and mortality rates of a community. The death rate has increased from 30.63 per o/oo in 1929 to 35.4 per o/oo in 1930. The Infantile Mortality rate rose from 132.23 in 1929 to 197.52 per thousand live births in 1930.

7. With the exception of Whooping Cough which levied a heavy toll on the children of the poorer classes during the second half of the year, and of typhoid fever, which broke out in epidemic form in Port Louis during February and March, there were no epidemics. The rise in the mortality statistics has been due to increased numbers of persons dying from the common diseases. Increased numbers of deaths were due to the following :—

Malaria	increase of 1,150
Pneumonia and Broncho-pneumonia, Diarrhœa and Enteritis	,, ,, 738
Bronchitis	,, ,, 87
Old age and debility	,, ,, 133
Dysentery	,, ,, 196
Albuminuria, nephritis and Uræmia	,, ,, 90

Increased mortality from these groups is more probably caused by a general lowering of the resistance of the population than by any enhanced virulence of the micro-organisms concerned. Unfortunately, the remedy for general lack of resistance in a community depends upon conditions largely out of the community's control, especially when the community is so crowded, and so small as ours happens to be.

8. 164 patients suffering from malignant disease were admitted to the hospitals, as compared with 166 during 1929. 94 of the tumours were situated in the female genital organs and breast ; the stomach and liver accounted for 27 ; peritoneum and intestinal tract 15 ; buccal cavity 6, and the skin 6. In 16 cases the site was not specified. The non-malignant new growths numbered 81.

The total number of deaths from Cancer in the Colony is given by the Registrar General as 75.

(A).—COMMUNICABLE DISEASES

INSECT-BORNE DISEASES MALARIA

9. Four species of Anopheles are known to exist in the Colony, viz: A. costalis, A. funestus, A. maculipalpis and A. mauritianus. The principal transmitter of malaria is A. costalis.

It is possible to record only the number of patients suffering from malaria in hospitals or applying for treatment at dispensaries, and the number of deaths certified by medical practitioners as being due to this disease.

The total number of patients suffering from malaria admitted to the hospitals was 3,918, an increase of 1,164 over the figure for the previous year. The case mortality was 2.16%.

The following tabular statement shows the admissions for malaria and deaths ascribed to it during this and the preceding year.

Institutions	Malaria			
	Admissions		Deaths	
—	1929	1930	1929	1930
Civil Hospital ...	701	1,032	25	17
Port Louis Prison ..	51	104	2	...
Long Mountain Hospital	148	169	1	4
Poudre d'Or Hospital ...	306	227	3	6
Flacq Hospital ...	409	556	7	6
Mahebourg Hospital ...	123	286	2	11
Souillac Hospital ...	404	384	8	7
Victoria Hospital ...	424	834	6	19
Beau Bassin Prison ...	86	91	...	3
Moka Hospital ...	33	171	...	11
Mental Hospital ...	54	47	2	1
Barkly Industrial School	15	17	...	...
	2,754	3,918	56	85

The total number of deaths in the Colony from malaria and malarial cachexia, 3,460, is equivalent to a death rate of 8.53 per ‰ living. The rate for 1929 was 5.7 per ‰.

The increased prevalence of malaria is shown in the high figures of the splenic indices of the various districts.

The splenic index of the children attending certain district schools is as follows:—

Districts	1928	1929	1930
—	%	%	%
Grand Port ...	24.95	21.36	27.45
Savanne ...	13.02	17.72	16.81
Plaines Wilhems	1.42	1.41	1.58
Moka ...	4.6	2.79	4.53
Flacq ...	...	23.11	23.46
Black River ...	...	...	21.05
Rivière du Rempart	...	...	13.25
Pamplemousses	...	...	19.47

PLAGUE

The last notification of human plague in the Colony was made on the 16th September 1927. This case was a sporadic one, and at the time of its occurrence there was no evidence of plague amongst rats. Since then no further sign of plague has appeared, either amongst rats or human beings.

Plague preventive measures were continued.

The report of the Medical Officer of Health, Port Louis, gives an account of some of these.

TYPHUS FEVER.

10. No case of this disease was notified during the year. (See the report of the Government Bacteriologist).

(B).—INFECTIOUS DISEASES.

SMALL POX

11. There has been no small-pox in the Colony since 1913. 9,211 children were vaccinated during 1930 by the public vaccinators. The data are given hereunder:—

Successful vaccinations on 1st attendance	8,176	
" " 2nd and subsequent attendances ...	730	
		8,906
Unsuccessful vaccinations		283
Vaccinations in which the results could not be ascertained ...		22
Total ...		9,211

The proportion of children vaccinated by Government Vaccinators to live births is 72%. This is a slight improvement over the figure registered in the previous year, but it is plain that an appreciable number of parents are still evading the law.

ENTERIC FEVER

12. 400 cases were notified. The Port Louis epidemic accounted for 179 of these. 198 patients received hospital treatment, the case mortality rate being 23.73 per cent.

The cause of the Port Louis epidemic was the wrecking of the intake of the Municipal water supply by the floods of December 1929.

13. Port Louis derived its water supply from 3 sources :—

(a) The Grand River North West;
(b) The Bathurst Canal;
(c) Mare-aux-Vacoas.

The waters of the first two were dangerous, as they came from polluted streams and were distributed without any purification. The Grand River North West water was distributed, roughly, to nine-tenths of the town, the Bathurst Canal supply serving the eastern tenth. The Mare-aux-Vacoas supply, the only safe water, was laid on to only a few premises such as certain Government buildings, certain restaurants and aerated water factories. There was also a tap at the Town Hall. The intake on the Grand River North West consisted of a dyke and two large rising mains; these brought the water several miles to the distributing reservoirs. The distributing reservoirs barely coped with the enormous wasteage of water which took place, so that to all intents and purposes the consumers drank unmodified river water whose quality was very variable.

The flood wrecked the dyke and destroyed the rising mains over a considerable length of their course in the stream bed, with the result that a large number of premises in Port Louis were deprived of their normal water supply at a time when the streams coursing through the town were in full flood. An equally serious concomitant was the lack of water in water closets.

14. The three bodies concerned, the Municipal Council, the Public Works Department and the Medical and Health Department cooperated in devising measures to meet the emergency. Private premises on which the Mare-aux-Vacoas supply was laid were opened night and day to the public. The Public Works Department quickly ran a temporary pipe line of Mare-aux-Vacoas water to the town, while the Municipality did likewise with the Bathurst Canal supply. As an immediate measure the Mayor organised a further supply of Mare-aux-Vacoas water by bringing it to Port Louis in motor lorries from a filling point in Beau Bassin. The medical measures are described in the report of the M. O. H.

15. In recording the course of the epidemic by graphs it was observed that there was a distinct interval between the date of notification of cases of the disease and the date of the occurence of symptoms. Many cases were only notified after the patient had died. As a general rule, notifications were late. The whole object of the notification of communicable diseases is to enable the Sanitary Authority to take early steps to protect the community from the disease in question. The earlier notification is made, the more effective is the action of the Sanitary Authority. Delay in notification means that more time is given for the disease to spread, and the wider the spread of the disease, the more difficult and onerous become the measures of control. The public should realise that it is in every way in its own interest to notify the Sanitary Authority as soon as possible after the occurrence of any of the common communicable diseases.

16. The statistics of Enteric Fever for the Colony generally are shown in the following table :—

ENTERIC FEVER FOR THE YEAR 1930.

Districts	January	February	March	April	May	June	July	August	September	October	November	December	Total for the year.
Port Louis	3	33	128	14	11	5	1	2	...	1	2	1	201
Plaines Wilhems ...	6	13	17	11	13	9	7	3	6	1	5	4	95
Moka	2	3	2	2	8	2	...	...	1	1	...	1	22
Black River	...	...	...	...	...	...	...	...	...	...	...	...	...
Pamplemousses ...	...	...	1		2	...	1	...	...	1	...	...	5
Rivière du Rempart..	...	1	...	...	1	...	1	...	...	...	...	...	3
Flacq	...	1	1	2	7	1	4	2	2	...	1	...	21
Savanne	...	...	2	2	1	5	1	4	1	2	1	1	20
Grand Port	1	2	4	...	14	4	2	2	2	...	...	2	33
Total Cases for the year 1930.	...	...	...	...	...	...	...	...	...	...	...	...	400

DIPHTHERIA

17. 39 cases of Diphtheria were notified in 1930.

PUERPERAL STATE.

18. 188 deaths were registered as being due to the puerperal state.

The deaths are classified as under:

Puerperal albuminuria and convulsions	26
Puerperal insanity	1
Puerperal hæmorrhage	15
Puerperal sepsis	49
Abortion	5
Other accidents of pregnancy	3
Other accidents of child birth	89

42 cases of puerperal septicaemia, of which 23 proved fatal, were treated in hospital—a case mortality of 54.76%.

In last year's report the calculation of the maternal mortality rate was discussed at some length, and the opinion was expressed that the most reliable index under existing conditions was the ratio of the number of deaths ascribed to the puerperal state to the total number of births, including still births. On this basis the maternal mortality rate was 13.4 per °/₀₀ in 1930 as compared with a rate of 11.2 per °/₀₀ for the previous year. As the agencies for the prevention of maternal mortality have not changed, the increase in the rate is probably another indication of the hard times through which the Colony is passing.

MEASLES (NOT NOTIFIABLE)

19. 17 cases of measles were notified during the year. The distribution was general. 12 deaths were recorded as having been due to measles.

ERYSIPELAS

20. 44 cases were notified, compared with 43 in 1929. 13 deaths were registered.

PULMONARY TUBERCULOSIS

21. Out of the 14,341 deaths of 1930, 447 were due to pulmonary tuberculosis giving a death rate of 11.02 per 10,000 inhabitants.

LEPROSY

22. The report on the work of the Leprosy Board and of the Leper Hospital appears in Appendix V. Dr. André's figures show that syphilis and leprosy occur comparatively often in the same patient and that when syphilis is present, leprosy is more severe than when syphilis is absent.

CHICKEN POX

23. Five cases of this disease were treated at the Beau Bassin Prison Hospital and 1 at the Victoria Hospital.

VENEREAL DISEASES

24. 310 cases of syphilis, with 12 deaths, were admitted to the hospitals during the year. 233 cases of gonorrhœa were treated, and 103 cases of soft chancre.

(C).—HELMINTHIC DISEASES

ANKYLOSTOMIASIS

25. The work of the Hookworm Branch is recorded in Appendix II. The report contains a record of much good work conscientiously carried out.

Ankylostomiasis is the major problem in the rural districts. It will retain its unenviable pre-eminence so long as the agricultural population pollute the soil with human excrement. The soil-sanitation campaign begun under the auspices of the International Health Board of the Rockefeller Foundation has been steadily waged by the Department since the period of cooperation with the Board came to an end. The returns for the rural districts show that roughly 99.5% of premises have a latrine of some kind or other—it may be a pit or a pail latrine according to circumstances. The infection figures quoted by Dr. d'Arifat show, however, that though the cooperation of the public has been obtained to the extent of providing latrines, it does not go so far as to effect the habitual and proper use of the provision made, and as a corollary, to prevent soil-pollution with excrement. Without co-operation to this extent, the Hookworm Branch, as it is constituted at present, can do very little in the way of making any radical improvement in the general situation. Nearly 31,000 treatments a year is an excellent record for one medical officer, but, as a little reflection will show, the benefit to be derived from this is rapidly lost if re-infection is inevitable and if treatments cannot be resumed in an area once treated until some eight or nine years have elapsed. We have attempted to supplement the work of the Hookworm Branch by offering treatment in treated areas through the Government Medical Officer and the Dispensaries. The results so far show that this is not an effective way of handling the problem and the only solution appears to be extending the work on the lines instituted by the International Health Board.

Until the rural population acquire the latrine habit, mass treatments repeated at frequent intervals are the only practicable means of keeping ankylostomiasis under control.

SCHISTOSOMIASIS

26. 65 cases of this condition were treated in the hospitals during the year, and 115 at the dispensaries. The local intermediate host has not yet been determined.

VITAL STATISTICS

27. The Vital Statistics of the Colony are calculated on the basis of the number of the population on the 1st January of the year under reference.

The distribution of the population and its density in each district are shown hereunder.

ESTIMATED POPULATION OF MAURITIUS ON THE 1ST JANUARY 1930

Districts	Area in square miles	General Population			Indian Population			Total Population			Density per square mile
		Males	Females	Total	Males	Females	Total	Males	Females	Total	
Port Louis ...	16	16,389	14,707	31,096	11,869	11,182	23,051	28,258	25,889	54,147	3,384
Pamplemousses ...	69	3,309	3,208	6,517	15,994	15,039	31,033	19,303	18,247	37,550	544
Rivière du Rempart	57½	3,229	2,963	6,192	14,592	13,717	28,309	17,821	16,680	34,501	600
Flacq ...	115	5,716	5,317	11,033	22,820	21,225	44,045	28,536	26,542	55,078	478.94
Grand Port ...	101	7,081	6,718	13,799	19,980	18,184	38,164	27,061	24,902	51,963	514.48
Savanne ...	93½	4,010	3,892	7,902	14,475	12,905	27,380	18,485	16,797	35,282	382.50
Plaines Wilhems ...	78	17,181	19,541	36,722	26,869	25 745	52,614	44,050	45,286	89,336	1,145.33
Moka ...	89	2,932	3,046	5,978	14,363	13,264	27,627	17,295	16,310	33,605	377.58
Black River ...	101	2,713	2,599	5,312	4,585	4,190	8,775	7,298	6,789	14,087	139.47
Grand Total ...	720	62,560	61,991	124,551	145,547	135,451	280,998	208,107	197,442	405,549	563 26 (mean)

The chief feature of interest here is the high density of population: 563.26 per square mile.

MARRIAGES

28. 1,277 marriages were celebrated in 1930 as compared with 1,521 in 1929; showing a decrease of 244. This is equivalent to a marriage rate (number of persons married to every thousand of population) of 6.3 o/oo.

BIRTHS

29. The total number of births for the year was 12,793 (6,442 males and 6,351 females). 4,640 of these occurred in the General, and 8,153 in the Indian population. The birth rate was 31.5 o/oo.

The District birth-rates (on population as at 1st January of each year) and the five-year mean rates are as follows:—

District	1926	1927	1928	1929	1930	Mean o/oo
Port Louis ...	39.5	36.0	38.4	35.6	35.5	37.0
Pamplemousses...	39.2	33.3	32.6	31.2	26.0	33.86
R. du Rempart ...	41.2	34.9	38.7	35.7	32.1	36.52
Flacq	35.4	31.1	31.5	29.6	27.2	30.96
Grand Port ...	38.0	31.0	37.3	32.4	30.0	33.74
Savanne	34.5	30.7	39.5	31.3	25.7	34.22
Plaines Wilhems	44.9	40.3	42.7	39.1	37.7	40.94
Moka	40.5	36 0	39.7	33.7	30.3	36.04
Black River ...	33.2	29.0	36.8	30.3	31.2	32.10
Whole Colony ...	39.4	34.5	37.9	34.0	31.5	35.46

It will be observed that the birth-rate was lower than that of last year.

DEATHS

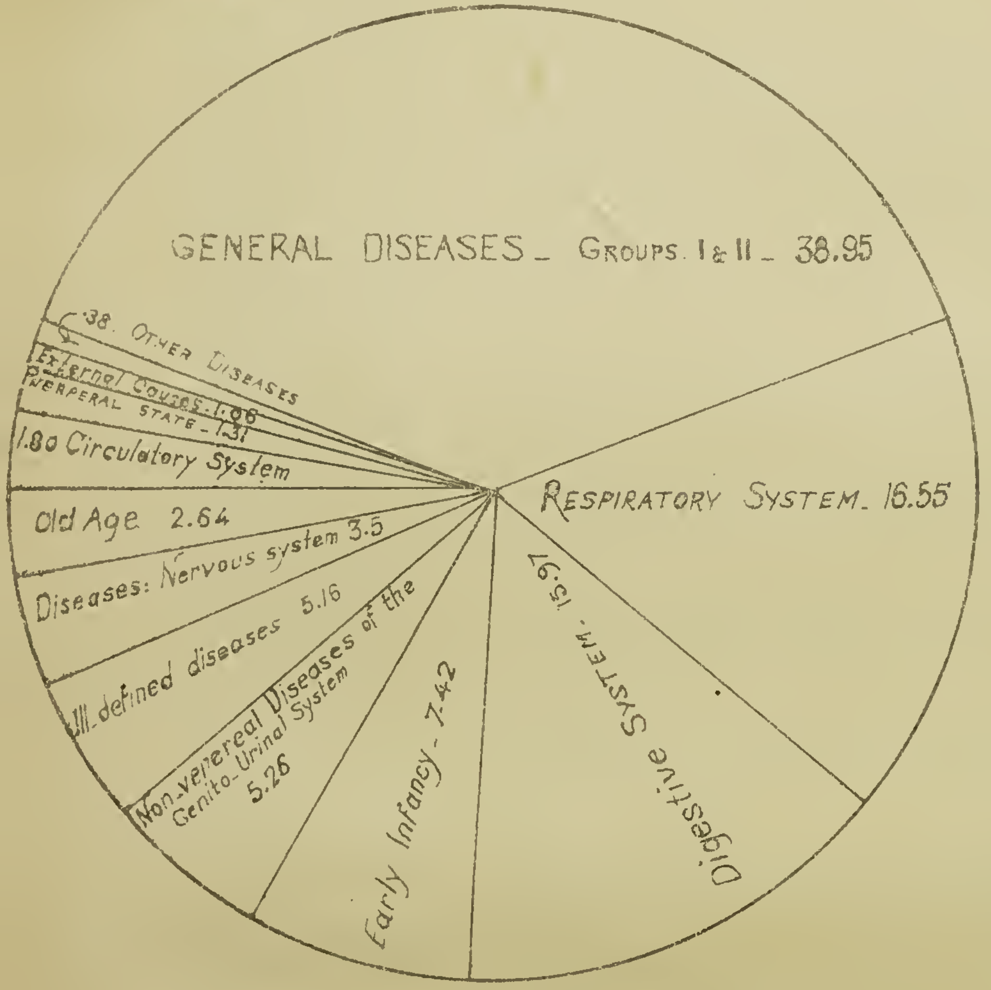
30. During the year 1930 the total number of deaths was 14,341 (7,491 males and 6,850 females; 4,338 in the General and 10,003 in the Indian population). This number is an increase of 1,928 over the total deaths of 1929.

The death rate for the Colony was 35.4 compared with 30.63o/oo for 1929 and with 26.8 o/oo for the quinquenial period preceding 1930. The month of maximum mortality was March whilst in 1929 it was April.

PERCENTAGE CLASSIFICATION OF

TOTAL DEATHS (14341)

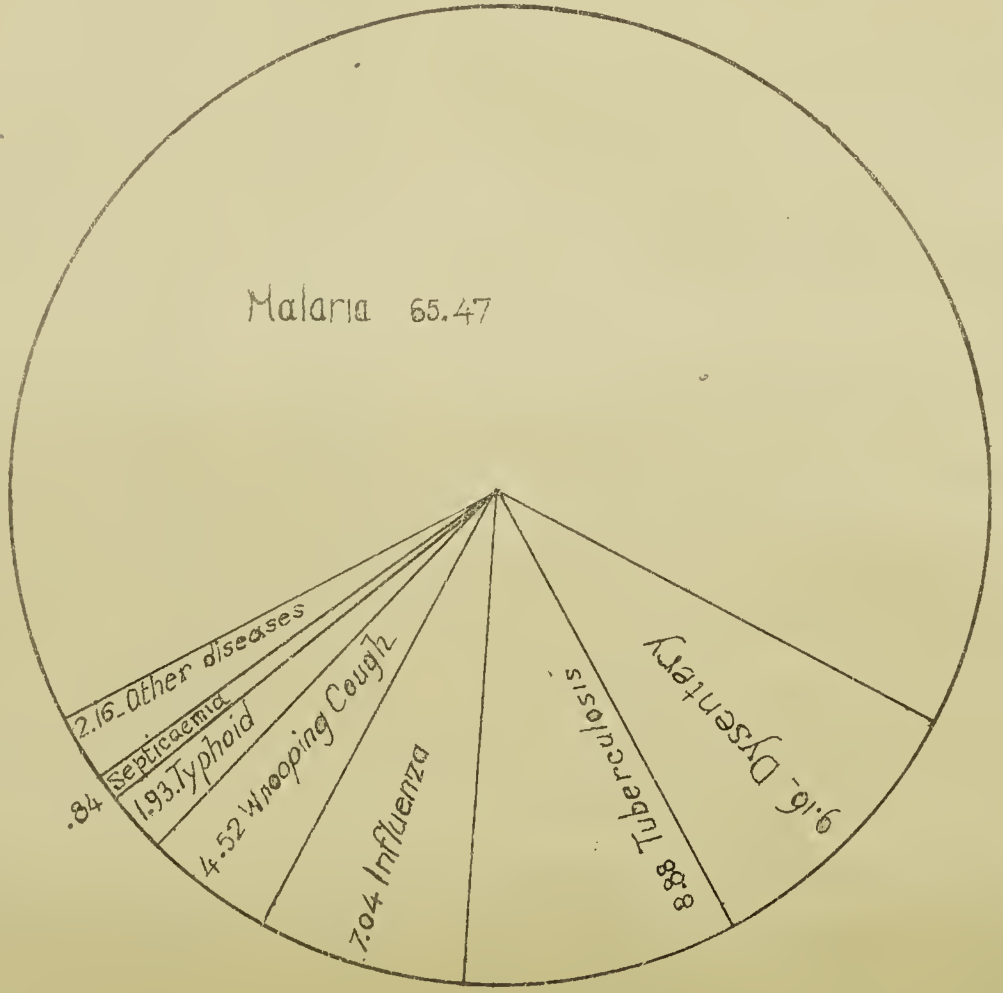
(FROM REGISTRAR GENERAL'S REPORT)



PERCENTAGE CLASSIFICATION OF

DEATHS DUE TO COMMUNICABLE DISEASES _ (GROUP_I)

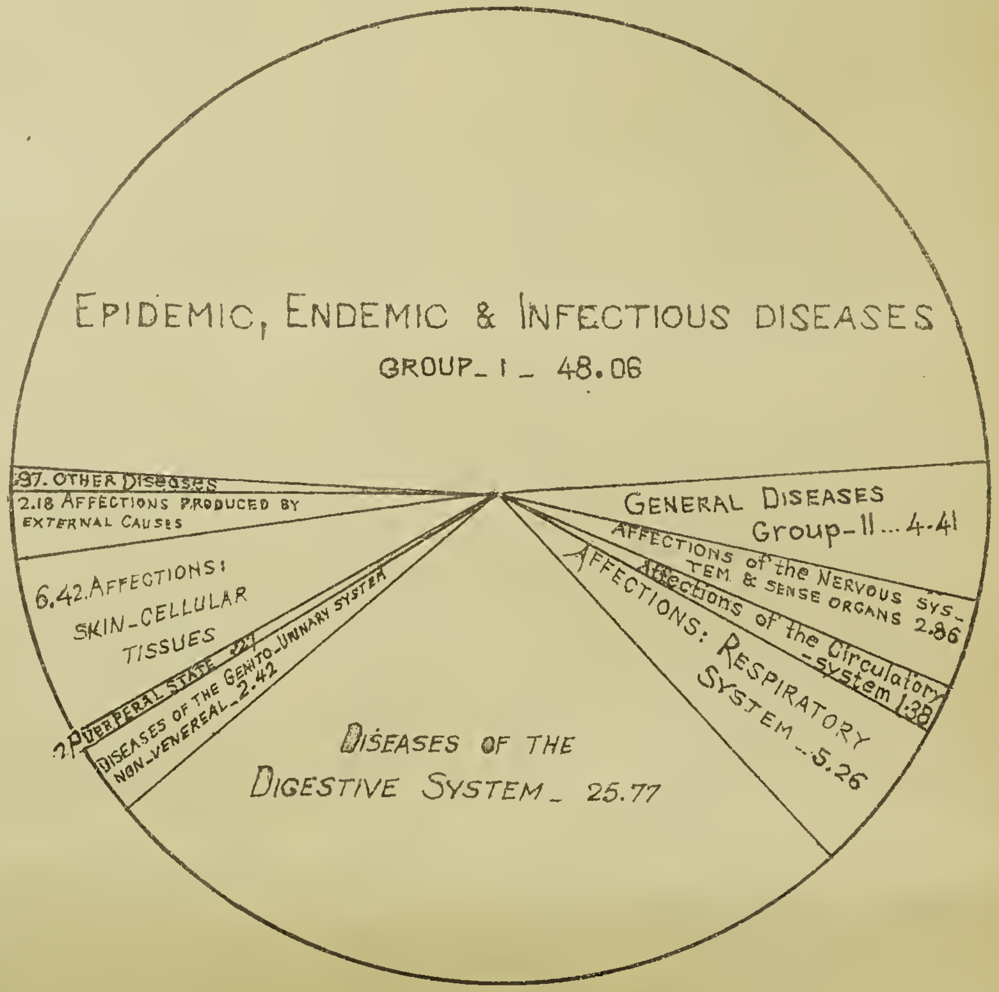
FROM REGISTRAR GENERAL'S REPORT:
(TOTAL DEATHS_5285)



PERCENTAGE CLASSIFICATION OF

DISEASES IN OUT-PATIENTS

TREATED AT
PUBLIC DISPENSARIES



OTHER DISEASES: .97

.18	Diseases of the bones & organs of Locomotion
.16	" " Infancy
.26	Affections of Old Age
.19	Ill-defined diseases
.18	Diseases Unclassified
TOTAL .97	

The following table shows the district death-rates* yearly for the five yearly periods 1926–30 and the average rates for the same period :—

District	1926	1927	1928	1929	1930	Average °/oo
Port Louis	28.0	27.7	32.1	35.0	43.3	32.22
Pamplemousses	28.8	33.2	40.1	37.8	48.3	37.64
Riv. du Rempart	25.6	25.5	26.4	28.1	37.9	28.70
Flacq	25.7	27.9	33.1	33.4	37.2	31.46
Grand Port	29.6	24.5	27.1	31.7	37.7	30.12
Savanne	25.4	24.1	27.0	30.6	27.8	26.98
Plaines Wilhems	18.4	18.1	19.0	22.2	25.6	20.66
Moka	22.8	25.8	26.6	28.9	30.9	27.00
Black River	33.2	28.5	34.0	44.0	39.5	35.84
Whole Colony	25.3	25.1	28.2	30.63	35.4	26.8

The death-rate for Plaines Wilhems is the lowest death-rate of all the districts of the Colony.

The next table, with the figures for 1929, inserted for purposes of easy comparison, summarises the causes of death and the rates in the usual groups† :—

Group.	No. of deaths 1929	No. of deaths 1930	Rate °/oo 1929	Rate °/oo 1930
I. General Diseases	4,752	5,285	11.7	13.0
II. General Diseases (not including above)	258	301	.6	.8
III. Diseases of the nervous system and sense organs	419	502	1.0	1.2
IV. Diseases of the circulatory system	275	260	.7	.6
V. Diseases of the respiratory system	2,428	2,374	6.0	5.9
VI. Diseases of the digestive system	1,323	2,290	3.3	5.7
VII. Non-Venereal Diseases of the genito-urinary system and adnexa	669	754	1.7	1.9
VIII. The puerperal state	168	188	.4	.5
IX. Diseases of the skin and cellular tissue	42	41	.1	.1
X. Diseases of the bones and of the organs of locomotion	3	9	.0	.0
XI. Congenital malformations	3	4	.0	.0
XII. Diseases of early infancy	970	1,063	2.4	2.6
XIII. Old Age	263	378	.7	.9
XIV. Affections produced by external causes	165	152	.4	.4
XV. Ill-defined causes	675	740	1.7	1.8
	12,413	14,341	30.7	35.4

The more notable causes of death were as under ;—

Diseases.	No. of deaths 1929	No. of deaths 1930	Rate per °/oo living 1229	Rate per °/oo living 1930
Malaria and malarial cachexia	2,310	3,460	5.70	8.53
Pneumonia & broncho-pneumonia.	1,690	1,571	4.17	3.87
Influenza	1,382	372	3.41	.91
Diseases of early infancy	970	1,063	2.14	2.62
Phthisis and tuberculosis	533	470	1.31	1.15
Diarrhoea and Enteritis	926	1,783	2.03	4.39
Bronchitis	555	642	1.36	1.58
Old age and debility	703	836	1.73	2.06
Dysentery	288	484	.71	1.19
Albuminuria, nephritis and uraemia	627	717	1.54	1.76
Heart diseases (organic)	183	115	.45	.28
The puerperal state	168	188	.41	.46

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* These are crude death rates, i.e. deaths irrespective of any consideration as to whether they are indigenous to the district or imported from another district.

† The grouping of causes of death here followed is that adopted by the Registrar General in his annual report, in accordance with the classification adopted by the Registrar General of England based on the third decennial revision by the International Commission, Paris, 1920. Influenza, Whooping Cough, Tuberculosis are included under General Diseases. (Group I.)

INFANTILE MORTALITY

31. The infantile mortality rate is the number of deaths of infants under one year of age occurring in any year for every thousand live births registered during the same year. The rate for 1930 was 197.52 o/oo as compared with 132.23 o/oo for 1929.

The deaths under 5 years were distributed as follows :

	Males	Females	Total
Under 1 year ...	1,277	1,250	2,527
1 year and under 2 years	493	531	1,024
2 years „ 3 „	495	540	1,035
3 years „ 4 „	259	321	580
4 years „ 5 „	171	257	428
	2,695	2,899	5,594

The following table shows the grouping of these deaths according to the causes inscribed on the death certificates :—

Cause of Death	Under 1 year	1 to under 5 years
General Diseases	660	1,310
General diseases not included above	4	12
Diseases of the nervous system and organs of the special senses	65	98
Diseases of the circulatory system	1	6
Diseases of the respiratory system	379	527
Diseases of the digestive system	318	829
Non-venereal diseases of the genito-urinary system and adnexa...	3	58
Diseases of the skin and cellular tissue	3	4
Diseases of the bones and organs of locomotion ...	...	1
Malformations	4	...
Diseases of early infancy	1,063	...
Affections produced by external causes	6	27
Ill-defined causes	21	195
All Causes	2,527	3,067

The distribution of the deaths attributed to the diseases of early infancy and a comparison of these figures with those of 1929 is shown below :—

Designation of diseases and accidents	1929	1930
Infantile debility	908	990
Premature birth	45	53
Atelectasis	11	14
Injuries at birth	2	3
Diseases of umbilicus, etc.	4	2
Other diseases peculiar to early infancy ...	...	1
Total	970	1,063

Still-Births

32. A still-birth is defined by the Registrar General as "a child born dead at or after the seventh month of pregnancy."

The number of still-births registered during 1930 is as under :—

District	Males		Females		Total	
	1929	1930	1929	1930	1929	1930
Port Louis ...	78	94	76	90	154	184
Pamplemousses ...	59	65	49	51	108	116
Rivière du Rempart ...	62	49	59	49	121	98
Flacq	94	84	71	85	165	169
Grand Port ...	76	69	61	58	137	127
Savanne	47	42	41	36	88	78
Plaines Wilhems ...	144	132	93	129	237	261
Moka	75	68	49	55	124	123
Black River ...	24	30	24	17	48	47
Total ...	659	633	523	570	1,182	1,203

It is equivalent to 94·0 o/oo of live Births, for the same period, as compared with 85·8 o/oo for 1929.

The still-births are distributed as follows for the two great classes of the population.

	Males	Females	Total
General Population ...	151	143	294
Indian Population ...	482	427	909
Total ...	633	570	1,203

III.—Hygiene and Sanitation

INSECT-BORNE DISEASES

MALARIA

33. The Anti-Malarial work carried out by the Department may best be considered under two headings :

(*a*) Maintenance ;
(*b*) New works and also extensive repairs and reconstructions required by the destructive floods of the earlier part of the year.

Maintenance

Drains and Canalised Streams upkept :—

District	Feet
Port Louis	186,331
Pamplemousses	688,589
Rivière du Rempart	21,775
Plaines Wilhems	390,000
Moka Flacq	256,000
Savanne	37,454
Black River	68,885
Grand Port	140,983
Total	1,790,017

The upkeep of anti-malarial works requires work of rather a varied character. In its simplest form it may consist only of keeping streams free from aquatic vegetation, trimming the banks and eliminating pools in which anopheline mosquitoes may breed. More elaborate measures are the repair of damage caused by flooding. This may mean the removal from the stream bed of boulders, rubble, trees and other obstructions, as well as the repair of the damage to drains caused by the torrent. In certain areas liable to torrential floods open drains which were continually being obstructed or washed out in parts were converted into french drains with excellent results. These drains were filled in with boulders, a channel being left along the bottom for the subsoil flow, until they were flush with the surface so that a rush of water down the hill-side which would have wrecked an open drain met no obstruction from the french drain and passed over it without doing very much damage. Further economies in upkeep works have been effected by applying vertical drainage to certain places. Vertical drainage consists in the construction of a large absorption pit which is dug sufficiently deep to pass through the impermeable soil and thus allow the water lying on the surface, or in the subsoil to drain down through an underlying porous layer. Where such pits can be constructed they save the making of the long and vulnerable surface drains which would otherwise be necessary.

The cyclonic storms to which the Colony is exposed for six months of the year render the cost of maintenance of anti-malarial works higher than would otherwise be the case.

New Works.

Mauritius has suffered severely from malaria since the disease first appeared in 1865–66. It is one of the first countries in which Ross' discovery of the part played by anopheline mosquitoes in the transmission of the disease was used as the basis of extensive anti-malarial operations.

The campaign against malaria received a great stimulus through a visit paid to the Island by Ross himself in 1907. By this time the disease had already spread from the coastal belt where it had first appeared, inland to the central plateau, where serious outbreaks occurred at such widely separated places as Moka, Curepipe and Phoenix. Ross' visit lasted from November 1907 until February 1908, i.e. during the hot and rainy season, so that he saw conditions at their worst.

Ross drew up a programme of major works, which were estimated by the Director Public Works and Surveys to cost Rs. 630,000 in capital expenditure and Rs. 42,300 per annum for maintenance. The measures instituted by Ross, and the type of organisation he devised were operative with little variation until 1920.

Ross thought that the campaign could be instituted and waged throughout the Colony. He states "The campaign should be commenced generally, simultaneously and vigorously over the whole Island, before the commencement of the malaria season; if possible in September or October next." Subsequent events showed that Ross was too optimistic. In 1920 major works were still in progress.

The estimated cost of the work was subsequently found to be too low. The Receiver General has reported that from the year 1911-12 to 30.6.29, over two million rupees were spent in respect of Anti-malaria Services under Head 16, Medical and Health Department, and from 1912-13 to 1925-26 over Rs. 1,000,000 from the Head Public Works Extraordinary. These figures show that the Government of the Colony was attempting to do what it could to control this serious disease. There is no doubt that the rise in the cost of labour and materials after 1920 has been largely responsible for the great discrepancy shown between the original estimates and the subsequent expenditure. This complication is unlikely to recur.

Notwithstanding the generous expenditure of funds, the results of the campaign were disappointing. One of the reasons for this was, perhaps, that the work had tended to become too stereotyped and that investigation had not been pursued concurrently with the field operations. Assumptions were made, and, unverified, were allowed to determine the scope and nature of the operations.

Owing to the War a remarkable wave of prosperity passed over the Island and enabled the Government, thanks to the initiative of the then Governor, His Excellency Sir Hesketh Bell, to found in 1920 the Mauritius General Improvement and Development Fund.

The Government wisely decided to obtain expert advice regarding the employment of the Improvement and Development Fund. In matters of sanitation the Colony was fortunate in obtaining the services of Dr., now Sir Andrew Balfour. This distinguished sanitarian spent from March until September 1921 in making a detailed survey of the health conditions of the Colony. He made a discovery which Ross, on account of his limited sojourn had been unable to do, when he observed "the way in which, during the winter, the breeding area of *anopheles costalis* became restricted." This discovery is of the highest importance for it has completely altered our conception regarding the way in which the anti-malarial campaign should be waged. Balfour suggested the despatch of a mission to study malaria in the Colony.

This suggestion was acted upon and the mission was entrusted to Mr. M. E. Macgregor, who arrived in Mauritius on June 7th 1922 and occupied himself with the problem until June 1923.

The result of these visits was to disclose the important fact that while the most dangerous anopheline transmitter of malaria led a normal existence and was widely distributed over the low-lying coastal districts throughout the year; in the upland regions of the Colony, roughly bounded by the main 600 foot contour line its breeding places in the cool weather became restricted to certain sheltered winter-refuges where, as Macgregor states, "restricted to the immediate vicinity of these winter-refuges, it pursues the regular course of its life, until with the onset of warmer weather and the coinciding wet season, it is enabled to spread speedily further inland to the limits of its summer distribution."

Macgregor was accordingly led to recommend that the anti-malaria campaign should be envisaged in two stages

1. The destruction of the inland winter-refuges, and
2. the extension of the campaign to the coastal belt of low-lying country in a series of six contiguous triangular areas

Macgregor's report reached Mauritius in 1924, but it was not then acted upon. During the three years following work was undertaken in places scattered throughout the Colony. In the beginning of January 1927, however, it was decided to institute a systematic campaign based on Macgregor's recommendations.

Anti-malaria work then fell into two categories :—

(a) The maintenance of works which had been carried out in the past.

(b) The prosecution of the new Campaign in the area bounded by the 600 foot contour line.

The expenditure on (a) was met from the general revenue of the Colony; that on (b) being financed from the Improvement and Development Fund.

The first stage of the new Campaign was to be devoted to the enlightment of the public in the area of operations and a re-survey of the inland winter-refuges. Major works which happened to be in progress were to be completed, but no new works were to be undertaken until the winter-refuges had been surveyed, and an estimate of the cost of their eradication obtained.

But the occurence of several cases of indigenous Malaria in Curepipe led to a modification of the original programme. It was decided to proceed with the drainage of the Mesnil watershed at the same time as the surveys of the winter-refuges were being carried out. This work has now been completed, and it is interesting to compare the cost with Ross' estimate, though it is difficult nowadays to picture the kind of work and its extent that was originally contemplated. Ross' estimate for it was Rs. 18,000; the amount spent has been Rs. 71,839.97 Cs.

These works, combined with the surveillance it has been possible to exercise, have apparently succeeded in controlling malaria in this locality. Such cases as have been notified in it have been found to have been infected elsewhere, and they have not been the cause of other cases in the neighbourhood. This encourages the hope that the extension of the work to other parts of the zone will be followed by similar gratifying results.

It should not be overlooked, as pointed out by Ross (Report Page 103), that anti-mosquito operations have their most beneficial effect upon malaria where the density of population is high. In the area of the winter-refuges the density of population is approximately 1,100 persons per square mile, quite high enough amply to justify works of the nature contemplated.

The inland winter-refuges have now been surveyed, Estimates have been prepared which show that the cost of their abolition will amount to Rs. 431,600. It would scarcely be possible to carry out these works during one cold season, as those who have written on the subject apparently assume. From my experience of similar work I consider it safer to regard this programme as being spread over three years.

I estimate the number of persons affected by the proposed works as roughly 140,000, giving a per capita cost of little over Rs. 3.

TABLE SHOWING THE MONTHLY PROGRESS OF THE ANTI-MALARIAL WORKS UNDERTAKEN DURING 1930

Month	Locality	Marshes, Depressions, etc., filled in	Drains constructed and reconstructed	Streams cleaned, graded and trained
January ...	Plaines Wilhems, Corps de Garde Mountain (Eastern Slope).	Filling holes and depressions of an aggregate surface area of 5790 sq. feet. Filling a drain of 800 x 5 x 2 feet.	Digging up small drains with an average width of 5.8 ft. and an average depth of 3.4 ft. over a total length of 1143 feet. Trenching done over a length of 1270 feet with 2 feet as average width and 2.6 ft. as average depth. Constructions of 3 rough culverts (total length : 36 feet).	Nil
February ..	Plaines Wilhems, Corps de Garde Mountain (Eastern Slope).	Filling depressions 5 in number: total length 205 feet, average width 47.6 feet, average depth 6 feet.	Cutting drains on a total length of 714 ft. with average width of 2 ft. and average depth of 1 ft. Making rubble drains across marshy lands on a total length of 462 feet with an average width of 2 feet and an average depth of 6 feet. Draining pools on a total length of 40 feet with average width of 12 feet 6 inches and a depth of 3 feet 3 inches.	Nil
	Phœnix (Clairfond).	Nil	Sidewalling 400 feet of drains 4 feet wide by 3 feet deep and 300 feet of drains 2 feet wide by 3 feet deep. Reconstructing drains over a total length of 1138 feet with an average width of 2 feet and a depth of 18″.	Nil
March ...	Plaines Wilhems, Quatre Bornes	Nil	Rough sidewalling of 460 feet of drains, 3.6 ft. deep in the vicinity of Corps de Garde Mountain.	Nil
	Corps de Garde Mountain (Eastern Slope).	Filling holes, covering a total length of 848 ft. and average width of 20.3 feet with an average depth of 6 inches.	Nil	Nil
	Phœnix ...	Nil	Reconstruction of Clairfond, French Drains— Total length ... 420 ft. Average width ... 2.2 ft. „ depth .. 2 ft.	Nil
	Curepipe (Eau Coulée).	Nil	Clearing 700 feet of drain, 2 ft. 6″ wide.	Nil

Month	Locality	Marshes, Depressions, etc., filled in	Drains constructed and reconstructed	Streams cleaned, graded and trained
April ...	Plaines Wilhems, Corps de Garde Mountain (Eastern Slope).	Nil	Digging up drains over a total length of 503 feet with an average width of 2 ft. and an average depth of 1 foot. French Drains.—Construction of— Total length ... 703 ft. Average width ... 2 ft. „ depth ... 1 ft. Rough sidewalling 100′ x 4′ and 96′ x 4′.	Nil
May ...	Plaines Wilhems, (Curepipe).	Nil	Excavating channels over a total length of 3242 feet with an average depth of 4 ft. 3 in: and an average width of 4 feet. Digging up drains of 264′ x 6′ x 3½′.	Nil
		Filling hollows over a total length of 500 feet with a width of 20 feet and an average depth of 2 feet.	Deepening and repairing drain of 350′ x 2′ x 5′. Rough sidewalling 525′ x 3′.	Clearing out and repairing damages done in Rivulet Eau Bleue over a length of 1500 feet.
	Pœnix ...	Filling up holes 150′ x 3′ x 2′.	Deepening and repairing drain 1216′ x 2′ x 2′. Rough sidewalling over a length of 475 feet x 2 feet. Reconstruction of a culvert of 12 feet.	Nil
	Quatre Bornes...	Filling up holes over a total length of 1500 feet with an average width of 3 feet and an average depth of 2 ft.	Clearing out and repairing damages done in drains over a total length of 8500 feet. Rough sidewalling of 840′ x 3′. Reconstruction of 20 culverts.	Nil
June ...	Curepipe (River du Mesnil Drainage scheme).	Nil	Excavating channels over a total length of 3280 ft. with an average width of 2 ft. 9 in: and an average depth of 2 ft. 9 inches.	Nil
	Curepipe Town	Filling up hollows 500′ x 20′ x 2′.	Digging up a drain on a length of 264 ft. and a depth of 6 ft. with an average width of 3′ 6″. Deepening a drain 350′ long x 2′ deep x 5′ wide. Rough side walling over a length of 325′ x 3′.	Nil
	Phœnix ...	Filling up holes 150′ x 3 ft x 2′.	Deepening drain 1216′ x 2′ x 2′. Rough sidewalling 475′ x 2′. Reconstruction of a culvert of 12 feet.	Nil
	Moka ...	Filling up a branch of River Profonde on a course of 115 ft. by 20 ft. wide and 2 feet high.	Nil	Rough sidewalling in River Profonde over a length 435 ft. by 4 ft. wide and 2 ft. high Canalising River Profonde on a course of 300 feet by 10 feet wide and 2 feet deep.

Month	Locality	Marshes, Depressions, etc., filled in	Drains constructed and reconstructed	Streams cleaned, graded and trained
July ...	Curepipe Extra Urban) Eau Coulée.	Filling up holes 200' x 10'.	Digging up drain 258' x 5' x 2' 6" x 3' 6". Rough Sidewalling 400' x 3'.	Nil
August ...	Curepipe Extra Urban).	Filling up ponds 130' x 30' 2 ft.	Drain digging 65' x 5' x 2' x 2 feet. Construction of French drain 85' by 2 ft. by 2 feet. Rough sidewalling 75' x 2½ feet.	Nil
September ...	Curepipe Town. Curepipe (Extra Urban).	Filling up banks of drain; 450' x 5' x 6'.	Construction of bridges. Digging up drain 500' x 5' x 2' x 3'. Rough sidewalling 440' x 2 ft.	Nil
October ...	Curepipe Extra Urban	Filling up depressions 200' x 4' x 6".	Digging up drain along Floreal Railway line 276' x 5' x 2' x 2' 6". Rough sidewalling 250' x 1' 6".	Nil
	Phœnix ...	Filling up hollows 18' x 8'x1'.	Construction of 2 culverts of 9 ft. long each. Rough sidewalling 50' x 4'.	Nil
	Quatre Bornes (Trianon)	Filling up hollows 1400' x 10' x 1'.	Rough sidewalling 1400' x 1'.	Cleaning and rough training of River Plaines Wilhems above Trianon Sugar Factory along 1450 feet.
November ...	Curepipe (Floréal).	Filling up holes over a total area of 38240 sq: feet with average depth of 1 foot.	Grading drain in the vicinity of Floreal Railway Station: 480' x 4' x 2' x 2'—50' x 5' x 2' v 1.6 feet and rough sidewalling 60' x 2'.	Nil
	Phœnix ...	Nil	New reconstruction of drains at Clairfond in the vicinity of the tramway lines of Highlands Estate along 250 feet.	Nil
	Quatre Bornes (Trianon).	Filling up holes 200' x 10' x 1'.	Nil	Cleaning and training of River Plaines Wilhems above Trianon Sugar Factory along 730 feet.
December ...	Curepipe, (Floréal & Rivière Sèche).	Filling up holes 310' x 10' x 3'.	Rough sidewalling 310' x 3'.	Cleaning and training of Rivière Sèche along 400 feet.
	Forest Side ...	Nil	Nil	Channelling and deepening rocky bed of River Eau Bleue above Carbonel bridge along 75 feet.
	Phœnix ...	Nil	Nil	Clearing and training of River Plaines Wilhems above Highlands Sugar Factory over a length of 800 feet.
	Moka, (Souillac Bridge).	Filling up side of River Moka over 400' x 20' x 4'. Filling up side of pond 60' x 45' x 8'.	Sidewalling over 400 feet.	Training bed of River Moka over 150' x 50'.

PLAGUE

34. Routine rodent examination was discontinued in the rural districts but was maintained in Port Louis and Plaines Wilhems.

The following tables record the work done.

DESTRUCTION OF RODENTS

Port Louis	25,333
Plaines Wilhems	15,857
Total ..	41,290

RODENTS MICROSCOPICALLY EXAMINED

District	Examined	Infected	Infection Rate
Port Louis ...	14,453	Nil	Nil
Plaines Wilhems ...	10,878	Nil	Nil

The report of the Medical Officer of Health, Port Louis, gives further details.

HELMINTHIC DISEASES

ANKYLOSTOMIASIS

35. The report of the Medical Officer in charge of the Ankylostomiasis Campaign is printed as an Appendix.

SCHISTOSOMIASIS

36. There is no advance to report regarding this subject.

ENTERIC FEVER

37. The usual sanitary enquiry was made in cases of enteric fever notified early enough to make such action of any use. The Port Louis epidemic was probably responsible for a number of the cases notified in Plaines Wilhems, though there is always more typhoid in Plaines Wilhems than one would be inclined to expect in an area where the domestic water supply is good. It is unlikely that the Plaines Wilhems typhoid fever is water-borne. Seasonal incidence does not give any indication of the source of the infection and one is left with the impression that much of it may be due to carriers. This, however, is very difficult to prove in a civil population.

GENERAL MEASURES OF SANITATION

NIGHT SOIL AND CONSERVANCY

38. The report of the Medical Officer of Health describes the night soil and conservancy work done by the Department in Port Louis.

The Night Soil Service at Curepipe is also carried out by the Health Department. Some 1,010 services are performed there daily on an average. The double-bucket system is in operation throughout the Island.

In other parts of the Colony where pail services exist, the work has been done either by the local authority e.g. Rose Hill—Beau Bassin Board of Commissioners, or by contractors working under government supervision. The services have been satisfactory upon the whole.

COLLECTION AND DISPOSAL OF REFUSE

39. In Port Louis the town refuse, collected daily from all parts of the town, is still being used for the filling in of large holes. Port Louis and the chain of villages lying along the main road from Rose Belle to Mahebourg are the only places where the Scavenging Service is carried out by the Sanitary Department. In other places the work is done either by the Local Authority or by Contractors working under the supervision of the Sanitary Department.

WATER SUPPLIES

40. The Medical Officer of Health's report records the condition of affairs in Port Louis. The Northern Districts have now a satisfactory piped supply.

In the South, improvements have been made, but there are still places where the supply is very unsatisfactory.

LABOUR CONDITIONS

41. From the reports of the Medical Officers concerned it would appear that the general hygienic conditions under which contracted servants are housed on estates have been generally satisfactory. It is unfortunate that fewer servants reside on estates. Further reference to this is made in paragraph 49 below.

There have been no widespread epidemics in the rural areas and the most insidious and important infections from the economic point of view are hookworm infection and malaria, both of which are endemic, and practically widespread.

FOOD IN RELATION TO HEALTH AND DISEASE

MARKETS AND ABATTOIRS

42. There are 6 public and 7 private abattoirs in the Colony. The public abattoirs administered by the Municipality of Port Louis, the boards of Beau Bassin and Rose Hill and Curepipe are each controlled by a veterinary officer.

The other abattoirs are conducted under the supervision of the sanitary staff.

The quality of the public milk supply is controlled by the Medical and Health Department.

MEASURES TAKEN TO SPREAD THE KNOWLEDGE OF HYGIENE AND SANITATION

43. Drs. d'Arifat and Barbeau, in conducting the Hookworm and Anti-Malarial Campaigns respectively, give public lectures and talks on hygiene and sanitation. The cinema is used in connection with this campaign. There can be little doubt that these activities have had a beneficial effect in stimulating the public interest in the art of keeping well.

Hygiene forms an integral part of the instruction in primary and secondary schools but there is a tendency to talk it instead of to live it. There is little use in describing the evils of soil pollution to the children of a school and of piously exhorting them always to use latrines for the needs of nature while the school latrine continues to be kept in a perfectly nauseating condition.

TRAINING OF SANITARY PERSONNEL.

44. Dr. L. M. J. R. Pilot delivered a number of lectures to members of the Sanitary Staff stationed in Port Louis and the Northern Districts.

Dr. A.G. Masson held informal demonstrations and talks with the Inspectors and Guards in his area.

RECOMMENDATIONS FOR FUTURE WORK.

45. The Department is considerably hampered by the fact that its reorganisation has been a subject of discussion since 1927. It has not been possible to give effect to the recommendations made by Balfour in his report on the Department published in 1921, and the altered financial situation has, unfortunately, removed his suggested organisation from the realm of practical politics. Two other types of organisation have been suggested and their relative merits are now under consideration. It is hoped that the prolonged study which is being devoted to this important subject will eventually result in the evolution of a type of organisation suited to the needs of the Colony.

IV.—Port Health Work and Administration.

46. The following table summarises the work done by the Port Sanitary Authority.

VESSELS ARRIVING		CREW EXAMINED		PASSENGERS EXAMINED	
Sailing craft	Steamers	Sailing Craft	Steamers	Sailing Craft	Steamers
18	184	289	13,970	388	3,108

Vessels given pratique on arrival	Vessels given pratique after disinfection of the dirty linen and effects of the passengers, crew, fumigation and disinfection of the forecastle	Vessels refusing pratique	Vessels given pratique after claytonising	Vessel claytonised at request of owner
137	30	3	32	1

V.—Maternity and Child Welfare

47. There are three agencies in Mauritius devoted to the prosecution of work on behalf of mothers and babies. Two of these agencies are Voluntary Societies: (a) the Mauritius Child Welfare which works at present in the Districts of Plaines Wilhems and Grand Port, and (b) the Oeuvre Pasteur de la Goutte de Lait confining its activities to Port Louis. Both do excellent work amongst the labouring classes, and the Government and other public bodies have recognised the value of the work they do by contributing to their revenue by grants from public funds. The de Chazal fund has also made substantial contributions.

The direct activities of the Government have been limited to the training of Midwives (see the following paragraph) and to the provision of a trained midwife at each of the rural hospitals. The duties of the hospital midwives consist of visiting expectant and nursing mothers, giving them advice and attempting to persuade the expectant mothers to entrust the conduct of their confinement to qualified persons. Few of these midwives are of Indian race and their efforts to persuade the Indian community to abandon their traditional methods and to have their confinements conducted according to modern standards are still very disappointing. A still more disappointing feature is the apparent lack of Indian women of sufficiently good education to enable them to attain the modest standard laid down for candidates for midwifery scholarships, so that we are faced with this situation that the Indian community will not employ midwives who are not of their own race and are unable to produce suitable women of their own race for training. So long as these circumstances persist, little progress can be expected.

VI.—The Midwives Board

48. This Board held 4 sittings during the year. The composition of the Board was as follows:—

The Director, Medical and Health Department,—*Chairman.*
The Medical Superintendent, Civil Hospital.
The Medical Superintendent, Victoria Hospital.
Dr. C. Mayer.
Dr. A. Delaitre.

9 applications for registration were considered, and the Board being satisfied that the applicants were of good character and otherwise eligible ordered that their names be entered on the Register of Midwives.

20 candidates were selected for training as midwives in the different hospitals in the Colony. On the 17th February and 22nd August 1930, the Board held an examination for the award of certificates as Second Class Midwives; out of 20 candidates, 19 succeeded in obtaining their certificates (11 in February and 8 in August).

The Regulations published under G.N. No. 180 of the 30th July 1927 provide for two classes of midwife. The first class for literate persons of a good general education, the second class for women illiterate or uneducated but of known respectability and capacity. The policy of the Board is, naturally, to encourage the training of midwives of the first class rather than those of the second, but local conditions make the recognition of a second class indispensable in the meantime.

VII.—Hospitals

49. The work of the General Hospitals of the Colony is summarised in Appendix VIII. It will be seen that 27,190 patients received hospital treatment as compared with 24,970 in 1929. The number of confinements conducted in hospitals showed an increase of 130 over the previous year's figures.

The increase in the number of in-patients is due to a number of factors, some of which have already been indicated in paragraphs 5, 6 and 7. Another factor which may possibly become increasingly operative is the closure of estate hospitals. The Labour Ordinance passed in 1922 gave no adequate security to the estate proprietor for the fulfilment by any servant of the terms of his agreement. Many estates therefore ceased from engaging labour by contract and, as one means of lowering their administrative charges, suppressed the hospital service which would otherwise have been obligatory. The progress of this movement is shown in the following table:—

Table showing the numbers of estate hospitals closed year by year.

Year	Estate Hospitals closed	Hospitals Remaining
1922	Nil	75
1923	6	69
1924	3	66
1925	6	60
1926	7	53
1927	2	51
1928	1	50
1929	3	47
1930	2	45

When one recollects that the estate hospitals admitted for treatment not only the labourers but also their wives and families, one can appreciate how much more strain is thrown upon the government hospitals by the closure of hospitals on the estates.

The effect of the new Labour Ordinance on the agricultural population is beginning to be felt in other directions. Until 1921 a fair proportion of them were under engagement and lived on the estates. They were housed by their employers; they received part of their wages in the form of rations and they were under what was a reasonably efficient system of medical and sanitary supervision. Ordinance No. 12 of 1922 changed all this. Increasing numbers of labourers left the estates and constructed huts of their own wherever they could obtain land. This movement brought with it sanitary problems which the sanitary staff of the government found to be practically insoluble because instead of being able to exercise sanitary control over several hundred labourers through one person (the estate manager or doctor) as was formerly the case, they were obliged to deal with the labourers themselves—scattered over a much wider area, and not having resources comparable with those of the estates under which they formerly served for carrying on sanitary work. Another disadvantage the labourer found was in receiving full wages in money, instead of partly in foodstuffs as was formerly the practice. This exposed him to the disabilities of a fluctuating market and in many cases proved too great a strain on his capacity to save or to lay out his money to the best advantage. As a result of these and circumstances associated with the depressed state of the sugar industry we are seeing at the dispensaries more persons suffering from malnutrition than we have noted in the past.

50. The following table summarises the work of the individual hospitals.

REPORT ON HOSPITAL WORK FOR THE YEAR 1930

Hospitals	Patients remaining on 31.12.29	New admissions	Deaths	Patients remaining on 31.12.30	No. of beds	No. of surgical operations	Particular diseases causing largest No. of admissions	Particular diseases causing largest No. of deaths
Civil	159	8,612	533	187	284	2,095	Influenza, Malaria, Bronchitis, Tuberculosis, Dysentery, Nephritis, Enteritis, Ankylostomiasis and Typhoid Fever.	Tuberculosis, Nephritis, Pneumonia, Enteritis, Typhoid Fever, Malaria and Ankylostomiasis.
Port Louis Prison ...	4	332	3	4	16	6	Malaria, Influenza, Pulmonary Tuberculosis, Bronchitis, Asthma, Dysentery, Diseases of the digestive and intestinal system and skin disease.	Pneumonia and Enteritis.
Long Mountain ...	9	903	76	27	32	96	Malaria, Tuberculosis, Dysentery, Diarrhœa and Nephritis.	Malaria, Dysentery, Diseases of heart, Bronchitis, Pneumonia and Diarrhœa.
Poudre d'Or ...	19	1,777	87	25	70	69	Malarial Fever.	Diarrhœa and Enteritis.
Flacq	33	2,480	130	18	74	261	Malaria and Ankylostomiasis.	Ankylostomiasis and Pulmonary Tuberculosis.
Mahebourg ...	29	2,291	195	40	108	236	Malaria and Ankylostomiasis.	Pneumonia and Colitis.
Souillac	31	2,202	92	42	76	271	Ankylostomiasis	Ankylostomiasis.
Victoria	101	5,546	323	108	254	1,698	Malaria and Ankylostomiasis.	Ankylostomiasis, Pneumonia and Malaria.
Beau Bassin Prison ...	10	346	12	8	32	50	Malaria, Cellulitis and Diarrhœa.	Heart disease, Ankylostomiasis and Cachexia.
Moka	13	1,958	90	30	83	1,053	Diseases of the intestinal parasites, Appendicitis, Malaria, Tuberculosis and Diseases of the eye.	Tuberculosis, Diarrhœa and Malaria.
Mental (Infirmary for Physical diseases).	9	263	28	9	56	181	Malaria, Epilepsy, Abscess, Dysentery and Influenza.	Acute lobar Pneumonia, Cerebral Hæmorrhage and Bronchitis.
Barkly Industrial School ...	...	63	...	...	...	1	......	......
Total ...	*417	26,773	1,569	*498	1,085	6,017		

* The small number of patients remaining in hospitals at the end of each year is due to the New year's holidays which the majority of patients desire to spend at home.

VIII.—Dispensary Returns

51. In paragraph 5 of the Annual Report for 1929 reference was made to the lack of uniformity in the recording of patients treated at dispensaries. Instead of recording only patients as formerly, each attendance is now recorded. The figures naturally show a very great increase, for under the former system one patient may have been responsible for several attendances although he appeared only once on the record. The dispensaries and hospital out-patient departments were consulted by male patients 95,349 times and by female patients : 94,307 times ; total : 189,656 consultations.

The number of new cases during the year amounted to 157,647. In 1929, 127,607 new cases were recorded.

IX.—Prisons and Reformatories

52. There are two prisons in the Colony, one at Beau Bassin, the other in Port Louis. The Industrial School for juvenile delinquents is at Beau Bassin.

The health of the prisoners has been good, and no epidemics of disease occurred during the year.

No deficiency diseases have been recorded.

X.—Meteorology

53. The Director of the Observatory has kindly furnished the following table.

METEOROLOGICAL RETURN FOR THE YEAR 1930

From the records of the Royal Alfred Observatory 178 ft. above sea level.

Months	Temperature °C					Humidity	Rainfall	Wind		Remarks
	Mean of Daily Minima on grass	Mean of Daily shade Maxima	Mean of Daily shade Minima	Mean daily Range	Mean	Mean Percentage	Amount in inches	Resultant Direction	Mean recorded speed m/s	
January ...	21.3	28.3	22.8	5.5	25.3	80.1	9.06	E. by S.	4.42	
February ...	20.8	28.9	22.8	6.1	25 5	81.3	5.37	East	3 74	Highest hourly wind 10.2 m/s on February 2nd.
March ...	17.9	29.1	21.7	7.4	25.1	75.9	1.44	E. S. E.	2 31	
April ...	16.9	28.5	20.8	7.7	24.2	76.2	1.35	E. S. E.	2.54	
May ...	15.7	26.3	19.7	6.6	22.6	75 2	2.54	S.E by E.	3.46	
June ...	12.6	24.3	17.1	7 2	20.3	76.3	3.72	S E by E	3.17	
July ...	12.9	23.5	17.1	6.4	20.1	76.3	1.49	S.E by E.	3 55	
August ...	12.2	23.3	16.4	6.9	19.4	72.8	1.42	S.E by E.	4.20	Lowest shade temperature 125° C on August 18th
September ...	15.5	25.3	18.1	7.2	21.2	74.7	1.94	E. by S.	3.67	
October ...	15.0	26.4	17.8	8.6	21.8	71 8	2.99	E. S. E.	3.28	
November ...	18 1	27.7	20 2	7.5	23.4	75.5	2.11	E. S. E.	2.92	Highest shade temperature 31.6° C on November 26th.
December ...	19.7	29.8	21.6	8.2	25.4	70.5	2.56	East	3.22	
Year ..	16.5	26 8	19.7	7.1	22.9	75.6	35.99	E. S. E.	3 37	

XI.—General

54. This report deals only with the Medical and Sanitary work of the Department. But the Medical Officers of all districts excepting Port Louis perform the duties assigned to Poor Law Officers. They are, consequently, responsible for the investigation of claims for poor relief, for the disbursement of doles to paupers in their districts, and for the accounting of whatever moneys they handle. In this work they are assisted by a certain number of the Dispensers who act in a clerical capacity and assist also in the enquiry regarding the financial state of applicants. The only merit of this arrangement is that it is a cheap way of providing relief for the destitute. From the administrative point of view it is to be regretted that the time of a professional staff should be absorbed in the performance of duties which require no professional ability for their proper accomplishment and could, in my opinion, be entrusted to laymen without any loss of efficiency.

55. It is my pleasant duty to thank all members of the Department for their willing co-operation in the work recorded here.

19th September, 1931.

J. BALFOUR KIRK,
Director.

APPENDIX I

ANNUAL REPORT OF THE BACTERIOLOGICAL LABORATORY FOR THE YEAR 1930

The total number of samples, articles and animals examined at the Bacteriological Laboratory in the year 1930 was 14,179.

The following are the figures for the last ten years:

1921	1,776	1926	5,077
1922	1,850	1927	8,062
1923	3,014	1928	11,841
1924	4,012	1929	9,391
1925	5,167	1930	14,199

The work done during the year under review is arranged under the same heads as before for convenience and to facilitate comparison with preceding reports.

CLINICAL WORK

Materials received for examination in the work comprised under this head are forwarded to the Laboratory from public hospitals and dispensaries as well as from general practitioners throughout the Colony. Fees for work done for private parties are claimed in accordance with the Regulation tariff except in such cases where parties are declared by their medical attendant to be unable to pay the laboratory charges when the examination is made free of cost. The amount collected from that source is shown in the last chapter of this Report.

A total of 7,234 samples were received for examination under this head against 5,635 in 1929. Cultural investigation followed by experimental inoculation when required, was made in connection with 510 of these samples. The materials examined comprised specimens of blood, sputum, pus, throat, nasal and uterine swabs, cerebrospinal fluid, human milk, spermatic fluid, fæces, urine, new-growths and various pathological discharges.

(1) *Blood.*

(a) Malaria.—194 smears were examined for parasites with successful findings in 31 cases as under :—

P. falciparum in	14 cases
P. vivax in	15 ,,
P. malariæ in	1 ,,
P. vivax & P. falciparum in	1 ,,

(b) *Filariasis.*—A total of 79 smears were received for examination for filaria embryos' 25 showed *Microfilaria bancrofti* viz : 31·6%.

(c) *Typhoid and the Paratyphoid fevers.*—These diseases accounted for 838 samples. 760 of these were tested for agglutinins by Dreyer's method with positive results for typhoid fever in 295 cases. Agglutination tests for B. *paratyphosus* A and B were made in 9 cases which all proved negative. In 69 blood cultures on bile-salt broth, 13 were positive for Eberth's B. *typhosus* and none yielded B. *paratyphosus* A and B.

(d) *Tropical typhus.*—Four specimens of blood were tested for agglutinins against stock cultures of Proteus X 19 with negative results in all of the cases.

(e) *Syphilis.*—2,418 Wassermann's tests were done against 1,283 in 1929. The results were positive in 439 and doubtful in 196 cases ; 445 samples showed no hemolytic power.

(f) *Tuberculosis.* —Microscopical examination was made for Koch's tubercle bacillus of a sample of blood from a case of hæmoptysis, with negative results.

(g) *Blood counts.*—102 differential leucocyte counts were made.

(h) *Urea, Glucose and other values.*—467 samples of blood were examined for their urea value, 54 for their glucose and chloride contents and one for non-protein nitrogen.

(i) *Bacteriological examination.*—69 samples were cultured with success in 16 cases. 13 of these have already been dealt with under para. (c) *supra.* ; of the remaining 3, staphylococci were found in 2 and streptococci in 1.

(2) *Sputum.*—546 samples were microscopically examined, one for *B, pestis* with negative result and the others for Koch's tubercle bacillus with or without the help of concentration methods. Positive results were obtained in 105 cases viz ; 19.2 %. Cultures were made from 17 other samples for the preparation of composite vaccines. The micro-organisms isolated were pneumococci, staphylo—and streptococci and micrococcus catarrhalis.

(3) *Throat and Nasal Swabs* were received on 317 occasions. As usual the examination was made for purposes of diagnosis or in the search for diphtheria carriers among convalescent patients or contacts. The Klebs-Lœffler organism was found on 65 swabs—14 on direct examination and 51 on culture—Vincent's fusiform bacillus was met with in 6 cases and Hoffman's in the same number. The other findings were, Oidium albicans, 4; staphylococci. 49; streptococci, 30; pneumococci, 1; leptothrix, 1 and spirillum 2 cases.

(4) *Pus.*—Number of specimens, 161, some in the form of smears of urethral or vaginal discharges, eye, tonsil and vulvar swabs. Gonococci were found on 20 occasions. In others the ordinary pyogenic organisms were present. Cultures were made in 71 cases with the following results;—

Staphylococci from	28	samples
Streptococci from	10	,,
Staphylococci and streptococci (mixed) from	8	,,
Gonococci from	1	,,
Gonococci, staphylococci and streptococci (mixed) from ...	2	,,
Gonococci, staphylococci and diphtheroid bacillus (mixed) from	1	,,
Gonococci, and staphylococci (mixed) from	3	,,
Bac. coli communior from	3	,,
Bac. coli communis from	1	,,
Gram negative bacillus from	1	,,
Bac. diffluens from	1	,,
Pneumococci, staphylococci and streptococci (mixed) from...	1	,,
Streptococci and Gram negative bacillus (mixed) from ...	1	,,
Negative results from	10	,,

(5) *Cerebrospinal Fluid.*—97 samples, dealt with as follows:—

Simple microscopical examination ...	6	samples
Leucocyte count	24	,,
Differential leucocyte count	10	,,
The Globulin test	18	,,
Quantitative albumen	2	,,
,, chlorides	1	,,
,, glucose	1	,,
,, urea	1	,,
Wassermann's reaction (6 positives) ...	30	,,

The remaining four samples were cultured. They yielded:

Pneumococci in ...	1 case
Streptococci in ...	1 case
No microorganisms in...	2 cases

(6) *Tappings.*—

(a) From pleura: 10 samples, sterile.

(b) From knee joint: 3 samples, sterile.

(c) From joint (not specified) 2 samples, sterile.

(d) From synovial cavities: 8 samples, sterile.

(e) From vesicle for Hansen's bacillus; 1 sample, sterile.

(7) *Uterine* Swabs.—Six samples. Direct examination, three, with results staphylococci 1, strepto & Gram positive diplococci 1, Culture, 3, with results staphylococci 1, strepto and gram negative bacilli 1, b. coli communior 1.

(8) *Ulcer scrapings and other smears.*

(a) From mouth: 1 case; bacteriological examination negative.

(b) From penis: 2 cases; no treponema pallidum.

(c) From ganglion: 1 case; no spirochaetae.

(d) From spleen: 1 case; no malarial parasites.

(9) *Faeces.*—Total number of specimens 958, amongst which 61 showed Ent. histolytiea and 52 A. coli. The following intestinal parasites or their eggs were also found in the course of these examinations:

Trichuris trichiura in	519	specimens.
Hookworm in	342	„
Blastocystis in	232	„
Ascaris in	208	„
Giardia intestinalis in	46	„
Trichomomas in	19	„
Strongyloides in	18	„
Chilomastix mesnili in	13	„
Clonorchis sinensis in	8	„
Spirilla in	3	„
Oxyuris vermicularis in	1	„

The return for Clonorchis sinensis refers to the detection of the eggs of this parasite in the stools of eight persons, all Chinese; the examination was made in connection with the investigation on this trematode mentioned in the report for the preceding year.

Twelve specimens were cultured. The predominant organisms isolated were:

Lactose fermenters (negative for b. typhosus) from	3	specimens.
B. coli from	2	„
B. coli communis from	2	„
B. coli communior from	1	„
B. paratyphosus (Gaertner) from	1	„
B. asiaticus and b. coli communis (mixed) from	1	„
B. alkaligenes and b. coli communis (mixed) from	1	„
Monilia psiloais from	1	„

(10) *Urine.*—742 analyses against 585 in 1929. Most of these consisted in routine clinical procedures, chemical and microscopical, but the centrifuged sediments of samples drawn with aseptic precautions were cultured in 121 cases with findings as under:—

B. coli communis	was isolated from	25	specimens
Staphylococci	„ „	11	„
B. coli communior	„ „	7	„
B. coli (undetermined)	„ „	4	„
B. paratyphosus (Gaertner)	„ „	2	„
B. aertycke	„ „	2	„
B. pyocyaneus	„ „	2	„
Staphylocci and streptococci (mixed)	„ „	2	„

while *B.* paratyphosus, salmonella, *B.* icteroides, *B.* proteus, *B.* lactis aerogenes, *B.* diffluens (Castellani), *B.* acidi lactici, *B.* coli pseudoasiaticus, *B.* capsulatus (Pfeifferi), lactose fermenter, *B.* coli staphylo and strepto, *B.* coli communior and strepto were recovered from one specimen each respectively. 54 specimens proved sterile.

Microscopical examination of the sediments also showed;—

Eggs of *Schistosoma haematobium*	53	samples.
Hyaline casts	50	„
Granular casts	34	„
Leucocytic casts	13	„
Spermatozoa	6	„
Staphylococci	6	„
Streptococci	4	„
Gonococci	3	„
Trichomonas	3	„
Microfilariae	2	„
Acarus ova	2	„
Ascaris ova	2	„
Trichuris ova	2	„
Lamblia cysts	1	„
Red blood casts	1	„
Epithelial casts	1	„

(11) *Intestinal Worms.*—Were received for identification on two occasions. They turned out to be specimens of Davainea Madagascariensis in both cases.

(12) *Organs Tissues and Pathological formations.*—67 specimens were cut and examined. True neoplastic growths were met with in 17 cases. They consisted of:—

	cases		cases
Adenocarcinoma	4	Possible sarcoma	1
Scirrhus cancer	3	Fibroadenoma	1
Epithelioma	2	Papillomatous wart	1
Fibromyoma	2	Colloid cancer	1
Round celled Sarcoma ...	1	Carcinomatous cells	1

In four of the specimens, ova of *Schistosoma haematobium* were found.

II.—Vaccines

A *Prophylactic Vaccines.*—Antityphoid prophylactic vaccine and Calmette's B. C. G. vaccine against tuberculosis were prepared throughout the year and supplied free to applicants.

1488 applications for anti-typhoid vaccine were satisfied as compared with 613 in 1929.

1983 infants were vaccinated against tuberculosis with B. C. G. during the year under review and 992 doses of the vaccine were issued to stock breeders at the request of the Agricultural Department for inoculation to young bovines.

B. *Therapeutic Vaccines*:—102 auto-vaccines were prepared during the period under report, with microorganisms isolated in the Laboratory from blood, urine, sputum, pus, urethral and lung abscess as follows:—

From blood with bacillus typhosus	3
„ streptococci	1
„ staphylococci	1
From urine with bacillus coli communis	13
„ staphylococci	4
„ staphylococci and streptococci	2
„ b. paratyphosus (Gaertner)	2
„ b. coli communior	2
„ bacillus coli	1
„ b. capsulatus (Pfeifferi)	1
„ b. pseudoasiaticus	1
From urine with bacillus icteroides	1
„ bacillus pyocyaneus	1
„ strepto and b. coli communior	1
From sputum with pneumo-strepto and catarrhalis	6
„ pneumo-staphylo and catarrhalis ...	2
„ pneumo-strepto-staphylo and catarrhalis ...	2
„ streptococci	2
„ pneumo and streptococci	1
„ pneumo-staphylo and streptococci ...	1
From pus with staphylococci	20
„ streptococci	6
„ streptococci and staphylococci	4
„ bacillus coli communior	1
„ bacillus diffluens	1
From urethral secretion with gono and staphylococci ...	3
„ „ gonococci	1
„ „ gono-staphylo—and diphtheroid ...	1
„ „ gono-staphylo—and streptococci ...	1
„ „ b. coli communior	1
From vaginal secretion with staphylo—and streptococci ...	1
From throat swab with streptococci	2
„ staphylococci	1
From eye swab with staphylococci	1
From tonsil swab with streptococci	1
From faeces with B. paratyphosus (Gaërtner)	1
From lung abscess with pneumo-strepto—and staphylococci ...	1

Filtered vaccines (Besredka's antivirus) and mixed vaccines for oral administration (Fisch) were also prepared.

III.—Public Health

In the Chemistry Division of the Laboratory a total of 421 samples of foods and drugs were analysed, a decrease of 308 as compared with the figures for 1929. The fall was shown mainly in connection with the milk examination.

The substances examined comprised :—

	No. of samples	No. of cases	From whom received
Milk	411	411	Sanitary Authorities, District Courts.
Wine	6		Private Party.
Sardines	1		Med. and Health Dept.

Complete chemical analysis was made in connection with three samples of water. The bacteriological control of the filter plant at La Marie was made monthly as usual. A constant control was made in connection with the chlorination of the Port Louis water supply, the Pailles filtered water being tested for its chlorine index and samples of chlorinated water from the supply reservoirs at Maupin and Monneron Hills for free chlorine and the presence of lactose fermenters in 50 cubic centimetres.

IV.—Medico-Legal

The articles of evidence, organs, materials etc, referred for examination by the Judicial Authorities at the request of the Police and other Public Departments amounted to 314. The following are the figures for the last five years :—

1926	272 articles.
1927	283 ,,
1928	330 ,,
1929	307 ,,
1930	314 ,,

The examination were made in connection with the following offences :—

Illicit distillation	116 articles	in 55 cases.
Murder	57 ,,	5 ,,
Rape	47 ,,	11 ,,
Poisoning	30 ,,	5 ,,
Sodomy	11 ,,	3 ,,
Possession of Gandia	9 ,,	8 ,,
Possession of Opium	7 ,,	2 ,,
Attempt at Rape	7 ,,	3 ,,
Suicidal Poisoning	6 ,,	2 ,,
Attempt on Chastity	5 ,,	1 ,,
Motor Spirit	5 ,,	1 ,,
Indecent act	4 ,,	1 ,,
Cider	3 ,,	1 ,,
Boiler	1 ,,	1 ,,
Motor lorry accident	1 ,,	1 ,,
Administration of noxious substance	1 ,,	1 ,,
Death (cause unknown)	1 ,,	1 ,,
Attempt at murder	1 ,,	1 ,,
Attempt at poisoning	1 ,,	1 ,,
Infanticide	1 ,,	1 ,,

Illicit distillation heads the list by a much higher figure than the preceding year when 78 samples were received.

V.—Research

Mr. L. Webb, Ag. Scientific Assistant and Mr. L. Dorval, Ag. Junior Microscopist were specially entrusted with bacteriological investigation into the following :—

A.—The seasonal variation of Lactose Fermenters in human faeces.

B.—The resistance or susceptibility of lactose fermenting bacilli to sunlight.

C.—The rate of disappearance of all lactose fermenters from water heavily polluted with fæcal matter of man exposed to the action of the sun's rays.

It is to be hoped that the detailed report drawn up which is too long to be inserted here in extenso may some time be published under memorandum form, but the following is a brief survey of the findings. Section A.—The year was divided into quarters and the percentage frequency of each of Mc. Conkey's group of lactose fermenters was observed.

Bacilli of groups I, II, III, IV were more abundant during the second, third, fourth, and first quarters each respectively. The percentage of frequency of lactose fermenting bacilli of the local group showed the higher figures as follows :—

First quarter, B. vesiculosus 11.9%, B. coli communior 10.2%, Escherichia sp. ? No. 18, 10.2%.

Second quarter, B. vesiculosus 16.1%, B. Grunthal 12.5%, Escherichia sp. ? No. 18, 12.5%.

Third quarter, Escherichia sp. ? No. 1, 25.0%, Escherichia sp. ? No. 9, 18.8% and B. coli communior 12.5%.

Fourth quarter, B. coli communior 15.0%.

Section B.—The procedure adopted was that of Clemesha viz : An emulsion was made with one gramme of fæcal matter in a litre of sterilized tap water, then passed through cotton wool to get rid of the grosser particles and exposed, in a glass dish of six inches diameter covered with a glass lid, to the action of the sun's rays. The level of liquid was not kept constant all through. Samples of five cc. were taken before and after exposure, inoculated into Mc. Conkey's medium, then plated on neutral roth lactose agar. About ten colonies were selected each time.

Applying Clemesha's classification to our sunlight experiments we find that :—

7 bacilli belong to Class II viz : bacillus No. 1, coli communior, bacillus No. 5, b. pseudo-coloides, bacillus No. 9, b. cavicida and b. lactis ærogenes.

3 belong to class III viz : bacillus No. 11, bacillus No. 18 and bacillus No. 29 i.e. two Escherichia and one Aerobacter.

Not one fell in Class I.

Mc. Conkey's Group III presented the most resisting organisms with 50% in Class III.

Group IV second in rank with 33.3% in Class III whilst Group II contained no truly resistant organisms.

No bacillus of Group I occured in the experiments.

The results obtained in the sunlight experiments are fairly in agreement with those of the seasonal variation (i.e. as recorded in nature) where groups III and IV thrive best in summer when the action of sunlight is most active.

Section C.—The heavy pollution of water was effected by one gramme of human fæces in one litre. The three experiments made comprised cultures in connection with exposures from 1 to 9, 1 to 8 and 1 to 8 days respectively. The result obtained being that a 1 in 1000 emulsion of fæcal matter is sterilized when exposed to the action of sunlight for 8 to 9 days.

2. *Bilharziasis.*—The search for the intermediate host of Schistosoma hæmatobium was continued ; the work being specially attended to by Student L. Cantin. The result has still proved unsuccessful. A total number of 5990 fresh water molluscs were dissected ; of which 112 were found infected with the cercariæ already mentioned in previous reports.

VI.—Administration

The fees collected at the Laboratory for work done for private parties amounted to Rs. 5550.34 cs. In addition to this, the sum of Rs. 1345.60 cs. was paid directly to the Treasury for Laboratory dues. The total receipts thus amounted to Rs. 6895.94 cs. as compared with Rs. 6478.84 cs. for 1929.

On the first of July Mr. Maya left on three months leave at the termination of which he retired from the service. Mr. Maya had been the Assistant Superintendent of the Laboratory since its creation and during that long period of devoted and enlightened service, his constant aim was to help in keeping the work of the Institution abreast of scientific progress. To him we owe the introduction of the B. C. G. vaccine which, as already stated, is now prepared in the routine work of the Laboratory. It gives me much pleasure to have this opportunity of offering him in this report the grateful farewell of the Superintendent and Staff of the Institution.

The work above reported upon was done by or under the direction of Dr. Barbeau, the Superintendent of the Laboratory now on leave previous to retirement from the service. I may be allowed to state here that all at the Laboratory deeply regret the severance of his connection with the management of the Institution.

June 29th, 1931.

F. J. R. MOMPLÉ,
Ag. Superintendent Bact. Laboratory.

APPENDIX II

HOOKWORM BRANCH—ANNUAL REPORT OF WORK DONE DURING THE YEAR 1930

1.—ORGANIZATION AND STAFF

No change to be recorded. The writer was absent, on leave, from the 26th March to the 6th November and Dr. L. J. Mac Gregor acted as Officer in charge.

2.—EXTENT OF OPERATIONS

Three districts have been attended to in 1930 ;—

Plaines Wilhems,
Black River,
Moka.

In the first-named district the campaign which had been started in August 1929 was closed in June 1930 when the activities of the Branch were transferred to Black River. The response of the population was so poor in that district that after five months work it was decided to start a preliminary survey in Moka while a supplementary round of treatment was being given in the schools of Plaines Wilhems.

The work done during the year under review compares favourably with that of the preceding year. It may be summarized as follows :—

Number of Examinations made	...	31,982
Number of Treatments given	...	30,916

The corrected percentage of Hookworm infection found amongst the various races of the Colony is :—

Indian	...	79.3	Chinese	...	50.8
Mixed	...	58.0	White	...	27.6

3.—MICROSCOPIC EXAMINATION

The method of examination employed is the "Willis salt floatation."

The other helminths, besides hookworm, incidentally found are :

Ascaris lumbricoides,
Trichocephalus dispar,
Strongyloides,
Oxyuris vermicularis,
Taenia solium & saginata.

It may be said without any exaggeration that every member of the labouring classes harbours at least two kinds of intestinal parasite. Infestation with Ascaris is particularly heavy, especially in children.

4.—TREATMENT

No change to be recorded.

5.—REMARKS

It is to be noted that in Plaines Wilhems where it has been possible to intensify the campaign to a certain extent, medical practitioners, both official and private, state that advanced cases of ankylostomiasis are now seldom met with.

Another fact to be noted is the steady increase in the number of patients attending Central Office on Saturdays :

Year			*Number of patients*
1928	...	...	798
1929	...	...	1,931
1930	...	...	3,056

As already pointed out in the last annual report, the patients referred to above have not, as a rule, been touched by direct propaganda. They come from every part of the Island, having sometimes travelled considerable distances. Their increasing number is a clear indication that the labouring classes are becoming more and more alive to the existence and dangers of Hookworm disease and realise the importance of treatment. This constitutes the best factor of hope for the future.

The satisfactory results obtained during these last few years must be considered only as an encouragement to intensify the campaign.

In the list of "Causes of admission to hospitals," Ankylostomiasis ranks second, causing a higher percentage of death than Malaria* :—

Disease		*Admissions*		*Deaths*		*Percentage*
Malaria	...	2,775	...	56	...	2.01
Ankylostomiasis		1,939	...	60	...	3.09

As a probable cause of insanity it is responsible for 12.6 per cent of the admissions at the Mental Hospital in 1929. Further, there is no doubt that the debilitating effects of the disease affect the general morbidity and mortality rate of the Colony.

The earning power of the individual is now markedly inferior to what it used to be and many cases of unemployment and pauperism can be traced to actual incapacity to work owing to hookworm disease.

April 22nd, 1931.

A. C. D'ARIFAT,
Medical Offiicer in charge Hookworm Branch.

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* Annual Report 1929—p. 40 & seq.

HOOKWORM CAMPAIGN WORK—MAURITIUS—FOR THE YEAR 1930

		Classification by Age																Total		
		0–5		6–10		11–20		21–30		31–40		41–50		51–60		Over 60				
	Census	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	% Infection
Central Dispensary ...	5,494	1,012	302	795	405	787	459	600	321	381	190	230	125	109	66	46	24	3,960	1,892	47.7
Plaines Wilhems ...	22,629	2,940	1,054	3,171	1,421	2,991	1,545	2,231	1,234	1,552	839	981	519	578	311	305	139	14,749	7,062	47.8
Black River ...	8,035	718	359	802	492	1,042	686	1,059	683	760	490	483	303	247	161	68	47	5,179	3,221	62.1
Moka	10,560	1,315	876	1,256	983	1,654	1,351	1,517	1,207	1,052	825	638	522	435	342	227	179	8,094	6,285	77.6
Total ...	46,718	5,985	2,591	6,024	3,301	6,474	4,041	5,407	3,445	3,745	2,344	2,332	1,469	1,369	880	646	389	31,982	18,460	57.7

	Classification by Race								Other Helminths					Treatments					Re-examination after treatment									
	Mixed		Indian		Chinese		White												1		2		3		4		Total	
	Examined	Infected	Examined	Infected	Examined	Infected	Examined	Infected	Ascaris	Tricho	Strongy	Oxyuris	Taenia	First	Second	Third	Fourth	Total	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
Central Dispensary ...	1,549	578	1,934	1,248	57	15	420	51	1,999	1,873	28	69	12	1,561	921	412	162	3,056	65	38	58	20	36	26	17	24	176	108
Plaines Wilhems ...	4,080	1,370	10,428	5,632	106	41	135	19	9,972	6,104	90	79	25	18,447	5,306	1,423	143	25,319	...	...	...	...	...	...	...	...	...	...
Black River ...	1,307	694	3,841	2,515	25	11	6	1	2,276	1,300	13	66	24	2,081	437	23	...	2,541	...	...	...	...	...	...	...	...	...	...
Moka	1,357	927	6,677	5,336	60	22	...	...	5,264	1,719	15	24	7	...	. .	...	...	...	...	...	...	...	...	...	...	...	...	...
Total... ...	8,293	3,569	22,880	14,731	248	89	561	71	19,511	10,996	146	238	68	22,089	5,664	1,858	305	30,916	65	35	58	20	36	26	17	24	176	108

APPENDIX III

PORT LOUIS ANNUAL REPORT FOR 1930

1.—Administration

The arrangement initiated the previous year, whereby Dr. L. M. J. R. Pilot combined the posts of Port Health Officer and Assistant Medical Officer of Health, continued in force. In conjunction with my appointment of Medical Officer of Health Port Louis, I also throughout the year acted as Deputy Director of Sanitary Services for the Island, Sanitary Warden of the Northern Districts, and Sanitary Warden for the District of Black River.

This entailed an absence from the town as a rule for two and a half out of the seven days of the week, but the loyal cooperation of my Assistant in Port Louis combined with increased efforts on my part, enabled me to cope with the extra work without any diminution of efficiency.

For the third year in succession, the sanitary staff was further reduced in number. One Sanitary Guard retired, and another was transferred elsewhere, neither of these men being replaced. The personnel therefore during the greater portion of the year consisted of one Chief Sanitary Inspector, four Inspectors and three Guards.

The Assistant Medical Officer of Health and the Chief Sanitary Inspector, delivered periodical lectures on the principles of hygiene and sanitation, for the benefit of the Sanitary inspectors and guards in Port Louis, and in some of the Northern Districts. Occasional test papers were set, but no examination was held during the year for the Royal Sanitary Institute Certificate.

2.—Public Health

The year under review is notable mainly for three outstanding events :—The results of a serious flood, an epidemic of enteric, and an increase of malaria.

Typhoid Fever.—The deluge which occurred on the 29th December 1929, in addition to causing much damage to property in a certain part of the town, smashed up the water main at its intake, and thus deprived the inhabitants for a considerable period of a sufficient supply of pure water for drinking and other purposes. This undoubtedly was responsible to an extent impossible to estimate, for the intractability and perhaps indirect cause of the enteric epidemic, which commenced in the third week of January. The seriousness of the situation in this connection was considerably enhanced by the consequential blocking of the water closets.

The number of enteric notifications from this epidemic was 179 as compared with 71 in the outbreak of the previous year. The deaths were 45 and 20 respectively. Every effort, routine and otherwise, was exerted to trace the epidemic to its source, and no pains were spared on the part of the medical and sanitary staff, in their endeavours to shorten and eventually terminate the outbreak.

All cases were exhaustively followed up, and contacts persuaded to protect themselves by inoculation, which was offered freely to all comers and daily carried out at the Medical and Health Department. 649 persons were thus injected hypodermically with the antityphoid vaccine prepared by the government laboratory at Le Réduit. The number of contacts inoculated was 170. 87 enteric fever contacts refused inoculation. A spot map was kept, school absentees traced, and actual cases of the disease as far as possible sent to hospital.

It is relevant to make mention here, however, of an omission in the law which embarrassed the Sanitary Authority somewhat in this connection.

> Article 48 of Ordinance 47 of 1925 states :—"......such person may, on the order of the Sanitary Authority, be removed to hospital......"

As however, no penalty is laid down in case of refusal, the article in question is useless to all intents and purposes, and many such instances occurred in which the Sanitary Authority was powerless to enforce the order.

Several samples of water of a suspicious character, and occasionally milks were examined in an effort to isolate the specific organism, and various graphs were made of the cases according to age, sex and occupational groups in an attempt to throw more light on the origin of the epidemic. Pamphlets containing information about the disease as to its etiology and prevention were posted up in public places, and the people were constantly exhorted to exercise restraint in drinking unboiled water of a definitely suspicious character. The endeavours of the sanitary staff in this respect met with a wretched response, and on every hand one came across the inhabitants consuming filthy waters with complete nonchalence, when a little effort would have afforded them a reasonably potable water for their temporary requirements. Considering the aforesaid, and not forgetting at the same time the difficulties of maintaining the conservancy system after the failure of the water supply, it is surprising that the epidemic of typhoid did not assume greater proportions than actually occurred. Stocks of Widal tubes were issued to medical practitioners on request.

MALARIA

The number of reported deaths from this disease and its sequaelae was 265 as against 153 the previous year. It should be noted that this was part of a general increase throughout the Colony. They are classified as follows:—

	Malaria	Malaria Cachexia
General Population	101 ...	23
Indian	119 ...	22

In addition to the above there were 4 cases of fatal blackwater fever.

From May to December, the Sanitary staff occupied much of their time in domiciliary visits, for the purpose of dosing with quinine cases of malaria recorded on lists submitted from the hospitals.

INFECTIOUS DISEASES

The numbers of deaths which occurred from infectious and contagious diseases during the whole year were as follows;—Enteric 53, Dysentery 52 (5 amoebic), Tuberculosis 174 (Potts Disease 3, Intestinal 5, Meningeal 1), Diphtheria 3, Erysipelas 2, Puerperal Sepsis 11.

The following were the numbers of cases notified;—Enteric 203, Diphtheria 6, Puerperal Sepsis 17, Erysipelas 18.

PUERPERAL STATE

The total number of deaths under this heading were 40 which includes 11 from Puerperal Fever recorded above. There were 184 still-births during the year.

VITAL STATISTICS

The estimated population of Port Louis, whose area covers 16 square miles, was 53,988 on 31st December 1930, being a decrease of 159 on the previous year.

The birth-rate was 35·5 as against 36·6 in 1929.

The death-rates were 43·3 and 35 respectively.

INFANTILE MORTALITY

During the twelve months 438 infants succumbed under the age of one year, 247 of whom belonged to the General Population, and the remaining 191 to the Indian Community.

3.—Hygiene and Sanitation

PREVENTIVE MEASURES

PLAGUE

Although no cases of this disease either human or rodent have been detected in the Colony for over three years, there is no diminution in the vigilance with which routine anti-plague measures continue to be carried out. 205 rooms were rendered ratproof during the year, the end of which saw the rat proof granary nearing completion. 25,333 rats were trapped including 10,116 males which were set at liberty. Experience elsewhere has demonstrated, that such attempts at altering the balance between the sexes, are more likely to produce results, than the practice of destroying indiscriminately all those caught.

The reduced number of rodents trapped as compared with the previous year, must be attributed chiefly to a decrease in the rat-catching personnel.

14,453 of the females were microscopically examined, but as already stated, in no cases did the splenic smears reveal Bacillus pestis. 542 of these were found to be gravid with 2,096 young. The fecundity index decreased again to 3·9 as against 4·05 and 4·36 in 1929 and 1928 respectively. 1,618 fleas were removed from 904 chloroformed rats. Grain and gunny bag stóres were as in previous years periodically claytonised.

MALARIA

The preventive measures necessary in the campaign against mosquito breeding places, assumed unprecedented proportions as a result of the disastrous flood, which carried down many hundreds of tons of débris into the paved portions of the town channels, as well as completely demolishing the anti-malarial works previously accomplished in the streams at a higher level in the extra urban area. Until the cessation of the rainy season, all efforts were directed towards maintaining central channels through the detritus to prevent the water from stagnating.

After a considerable delay, in part due to financial difficulties, and partly to the time expended in endeavouring to compute the amount of rubble to be removed, the work of clearing up the mess was eventually taken in hand.

23,700 feet of La Paix, Fanfaron, Trichnapooty, Pouce and Tranquebar streams, and Standley Drain, were cleared of flood débris of which 14,250 feet were by contract labour, and 9,450 by the stream gangs of the Department.

The bulk of 1,291 tons of gravel removed from the Pouce and Tranquebar streams was dumped on the site of the projected pleasure ground extension, the remainder being utilised in filling up recently created depressions along the sides and in the beds of the streams. Funds did not permit of the Sanitary Engineer repairing more than a small portion of the damage which had resulted to the paved beds of the channels, such work having to be held over until the next financial year.

The upper portion of the Pouce stream now follows a new course, the dressed stones of its floor being still buried beneath some score tons of débris.

Altogether 186,331 feet of existing drains and water-courses were upkept by the Cantonniers, and in addition to this the Sanitary staff were much occupied as in previous years dealing with other water nuisances in the town arising from " leaking prises " etc.

The " Catch Water Drain " on the Eastern slope of Signal Mountain, was deblocked and regraded on a length of 350 feet by 30 feet broad, and to an average depth of 4 feet.

No further expropriation took place in the Pouce and La Paix Valleys in connection with the " Half Mile Belt " scheme.

It was noticed that spontaneous migration of the Dactylopius tomentosus from its original experimental colonising site has taken place and that extensive clumps of previously healthy cactus in the Western Suburbs are now attacked.

The explanation of this is probably to be found in the prevalent wind.

The extermination of the mosquito in its larval stage was systematically carried out, and the following enumerates the breeding places treated during the twelve months :—

CULICIDÆ				CULICINÆ	
A. costalis	A. mauritianus	A. maculipalpis	A. funestus	Stegomyia	Culex
219	2	8	...	31	118

A. funestus was not met with at all, whereas 20 Culex tigripes breeding places were discovered in the course of the year.

GENERAL MEASURE OF SANITATION

NIGHT SOIL AND CONSERVANCY

The close of the year saw the completion of 278 additional water closets with a resulting decrease of 294 pail latrines.

Total number of pail latrines on			1. 1.30	=2,312
,,	,,	,,	31.12.30	=2,018
,,	pit	,,	1. 1.30	= 674
,,	,,	,,	31.12.30	= 658

Pail latrines were superseded by pits in nine instances in the Cassis region, after observation of trial pits had demonstrated the feasibility of this. The treatment of pit latrines to minimize fly nuisance was accomplished under the supervision of Sanitary officers.

Septic tanks were installed for the use of the personnel of the Match Factory on Plaine Lauzun, and the Pine-apple Factory near Albion Dock.

The two tipping establishments connected to the sewer for the reception of the night soil worked satisfactorily. They were however out of action for 27 days from 31.12.29 to 26.1.30, owing to the failure of the water supply, resulting from the damage to the mains caused by the flood. This difficulty was overcome, by emptying the pails into the sea in the neighbourhood of the old salt pans. No nuisance accrued from this emergency manœuvre, which was the sole practicable solution under the circumstances.

The three year contract for the supply and daily transport of pails by motor vehicles normally terminated at the end of September, but was extended until December 31st by special arrangement, at the same contract price.

During the August school vacation, I had all the pail latrines of the Pamplemousses Road Roman Catholic Aided School, removed from a most unsuitable site in close proximity to one of the classrooms, to a corner of the playground abutting on the street.

COLLECTION AND DISPOSAL OF REFUSE

This work continues to be performed by the Sanitary Department.

The transport employed in this service consists of 7 Ford lorries and 20 trailers, thus undergoing no change, (except as regards age) from previous years.

Work at the Menagerie Street dump was interrupted, through frequent outbreaks of fire from spontaneous combustion, and it was consequently necessary to leave this site which had been in use for a year, and commence filling in another old quarry of greater extent on Plaine Lauzun.

90,000 square feet of land were reclaimed at Cassis, 32,640 at Plaine Lauzun and 86,400 at Roche Bois. During January, the resources of the service were sorely taxed by the results of the flood, and many hundreds of tons of mud were removed from streets and private premises.

WATER SUPPLY

For full information as to the emergency measures undertaken, to supply the town with water after the Grand River North West main pipe had been smashed up by the flood, and also of the permanent modifications effected regarding the sources of supply, whereby Mare-aux-Vacoas water was furnished in increased amount, the reader is referred to the Annual Report of the Public Works Department, who are responsible for this service.

It may be mentioned here, however, that the chlorination plant commenced working in the middle of April, and has continued uninterruptedly since that date.

Although the Typhoid epidemic manifested the characteristics of a water-borne outbreak, spot maps of infected premises, failed to show any relation to the different drained areas. As already stated, frequent bacteriological examinations of samples procured from the town water supplies, were unsuccessful in isolating B. typhosus.

The Sanitary Department is still responsible for the watering of the streets.

HOUSING

This problem remains one of the main preoccupations of the Sanitary Department, for the ill-ventilated, dark, and over crowded homes of a large proportion of the population, are undoubtedly responsible for much of the chronic ill-health of the inhabitants.

Such conditions favour the propagation of Tuberculosis and other infectious and contagious diseases, and certainly influence the Infant Mortality Rate, in addition to retarding the physical development of children during their most critical years of growth.

It is fully appreciated that the beneficial conditions rendered possible by the structural improvements obtained at the suggestion of the Sanitary Authority, are in many instances nullified, through the occupants closing completely every window and shutter during the long night hours, when the dwelling contains its full complement of human beings.

This fact has convinced me of the necessity for insisting upon some means of permanent ventilation, but it is dispiriting to observe in the course of later visits, what energy has been been expended by the tenants, in attempting to block such ventilators, louvres, or air-holes with old rags or paper, in an endeavour to exclude any possibility of fresh air gaining an ingress.

On the other hand, it has been gratifying to remark, during the year, the increasing readiness with which intending builders are disposed to seek advice from the Health Department, before drawing up plans and applying for building permits.

This indicates that there is a growing number of enlightened citizens, who are beginning to appreciate the need of constructing houses more in accordance with the sound principles of health and hygiene, than had been customary in the past. It is, therefore, not as a rule in regard to new building that one encounters obstacles.

If a man embarks on building construction, I assume that he has the means to erect reasonably habitable dwellings. There is, of course, the exceptional case of the very poor person who has begged, borrowed or inherited a tiny plot of ground, and strives to achieve his natural ambition to possess a domicile completely his own, by creating a hovel from the ubiquitous petrol tins and cases, with uprights of old wood or iron, that may have done service on land or sea for half a century or more.

The chief problem, however, is that of eradicating or improving the ever-present slum dwellings scattered throughout the town, and mostly constructed against the boundary walls of what, in better days, constituted good family properties.

The financial straits of the Colony and general shortage of money, have so diminished the resources of landlords, that they recoil from spending more than the bare minimum on effecting improvements or repairs. Then again, one has to weigh seriously, judging each case on its own merits, (or rather demerits), whether improvements or repairs are worth while, or whether they might tend to perpetuate a condition of affairs which, were it possible, ought really to receive treatment of a more radical kind.

In spite of many difficulties from mortgages, vested interests, properties held in trust for minors, and the trouble encountered frequently in attempting to get in touch with the real representatives or owners of rotten property, steady progress continues to be made in ameliorating slum conditions.

Occupants of overcrowded and insanitary rooms are often advised to give Bell Village a trial, but prejudice appears too strong to allow them to consider this project seriously, and the houses of this locality still remain sadly lacking tenants. Attention was, however, directed to the Village after the flood, when it proved useful for the housing of refugees, as did also to a lesser extent, the Grand River North West Lazaret.

During the year, natural devices for promoting additional lighting and ventilation were installed in 31 houses comprising a total of 101 rooms, and 32 old houses, involving 94 rooms, were reconditioned on the same lines. 44 new houses containing 120 rooms in all were built, and these embodied the principles of sanitary requirements. A number of these superseded old structures which were demolished, and many other wretched buildings were razed to the ground in different localities.

MATERNITY AND CHILD WELFARE

A certain amount of good work is carried out by the " Œuvre Pasteur de la Goutte de Lait," which is concerned almost exclusively with the preparation and supply of sterilised milk. This organization, in addition to the support it receives from the Municipality, obtains an annual grant from Government of Rs. 4,800.

BAKEHOUSES

I paid several visits to the 28 bakehouses to be found in the town, and managed to obtain material improvements in nearly all of them. Floors were concreted, walls pointed and limewashed, better lighting attained, and various other sanitary measures enforced. It was necessary to close some temporarily to facilitate the fulfilment of the desired alterations. Three of them have remained shut because they took no action in the matter.

In a few instances, old cakes and sweets were detected being broken up or boiled down for re-sale.

MARKETS

There are no noteworthy structural improvements to report during the year, though better control as regards upkeep has been noticeable. I drew the Mayor's attention to the disgusting and verminous condition of the old tree-trunk meat blocks, and he is to be congratulated on his efforts at replacing them by blocks which are adjustable on metal trestles. It is regrettable that the recently built La Butte Market is already in disrepair, shoddy material having been utilised in its construction.

CEMETERIES

The two public cemeteries under the control of the Municipality were satisfactorily upkept during the twelve months.

Occasional complaints have been received after heavy rains of nuisance resulting from an invasion of graves by surface water.

SLAUGHTER HOUSE

The improvements to the building under construction last year are now finished, and the transport conditions of the meat show an advance in the provision of a new meat wagon, and a superior state of the old ones which have been repaired.

The access of dogs and fowls to the abattoir during slaughtering has been reported by me more than once, and as their presence appears to be still tolerated occasionally, I shall urge their seizure in future.

DOGS AND PIGS

809 stray dogs were caught by the Police during the year, being nearly 300 less than in the previous twelve months. Of this number 592 were painlessly destroyed, 189 returned to the owners, 18 sold, 3 died in pound and 7 disposed of in other ways.

From the large numbers of diseased and starving dogs still to be seen wandering throughout the town, and especially in the neighbourhood of the markets and refuse dumps, it would appear that some augmentation of work of this nature would not be disadvantageous.

SANITARY CONTROL OF FOODSTUFFS.

Action under Article 151 of Ordinance No. 47 of 1925, dealing with articles of food unfit for human consumption, was taken in 10 cases.

The following is a list of the articles seized and destroyed, the bulky ones being disposed of by dumping in the sea in the outer anchorage :—

98	(large) tins of	sardines in oil
21	(small) ,,	,,
4	,,	asparagus
304	,,	peas
4	,,	'poulet roti'
1	tin ,,	'langue à la gélée'
365	bags ,,	flour
8	tons ,,	potatoes

Milk Control.—The Port Louis Magistrate drew attention to the illegal practice of securing milk samples for analysis without tendering payment for same, and some time elapsed before funds became available for this purpose. In the meantime the extent of milk adulteration unfortunately increased, as evidence by the Analyst's reports on the samples transmitted immediately after the milk control had been resumed. This fact, however, demonstrated the deterrent effect milk sampling has upon the dishonest purveyor.

The following is a summary of the action taken in this connection :—

Number of samples analysed	Number of samples found to be genuine	Number of samples found to be sophisticated	Number of warnings given	Number of contraventions established	Number of convictions	Fines in Rupees	Imprisonment	Length of time
148	57	91	42	91	46	450	3	1—3 months 1—2 ,, 1—1 month

17th June 1931

E. R. W. GILMORE,
M.O.H., Port Louis.

APPENDIX IV

REPORT ON THE MENTAL HOSPITAL FOR THE YEAR 1930

1.—*Total insane population of Colony*

The total number of certified insane persons in the Colony on the 31st December 1930 was 833, compared with 759 for 1929.

2. The following table shows the distribution of the 833 certified insane persons in the Colony on 31.12.30.

	General			Indian			Chinese			Total
	M	F	T	M	F	T	M	F	T	
At Mental Hospital ...	179	176	335	170	100	270	15	3	18	643
On probation leave ...	43	47	90	50	35	85	1	...	1	176
On leave under G. N. No. 239/24	4	2	6	3	3	6	1	...	1	13
At Moka Hospital for surgical treatment	...	1	1	...	...	...	...	...	...	1
Total ...	226	226	452	223	138	361	17	3	20	833

3. The percentage sex distribution of the 833 certified insane persons was males 55.9 and females 44.0, compared with males 51.3 and females 48.7 for the estimated pouplation of the Island on 31.12.30.

4. The following table gives the insane rates per 10,000 of the population of the Island calculated on the number of certified insane persons in the Colony on 31.12.30:—

	M	F	T
General population ...	40.3	38.0	39.1
Indian population ...	15.4	10.2	12.9
Chinese population ...	24.3	10.5	20.3
Total ...	22.4	18.6	20.5

The above table shows that insanity is more prevalent among males than females, especially so in the case of Indians and Chinese. The total insane rate for the General population is more than three times that for Indians and is approximately the British rate of 37 per 10,000.

5. The following table gives the total insane rate per 10,000 of the pouplation of the Island for the years 1924 to 1930, the total number of certified persons in the Colony on 31st of each of these years and the estimated population of the Island:—

Years	1924	1925	1926	1927	1928	1929	1930
Insane rate per 10,000 of population...	17.6	17.7	18.0	18.1	18.4	18.7	20.5
Total certified insane on December 31st	686	700	719	729	748	759	833
Population of Colony on December 31st	387,743	393,708	398,236	401,693	404,802	405,549	404,458

The above table shows a sharp rise in the incidence of insanity for 1930 due in great measure to such factors as increased worry, privation, and unemployment, greater prevalence of bodily sickness all of which arise from the present financial stringency of the Colony and affect adversely the mental state of the population.

6.—*Hospital Population*

There were 653 inmates (369 males and 284 females) in hospital on 31.12.30. Of these 5 males and 5 females were under interim detention pending a decision as to their mental state, so that the total number of certified insane persons in hospital on the above date was 643 (364 males and 279 females) compared with 623 (360 males and 263 females) on 31.12.29. Included in the 643 certified patients were 15 male and 12 female paying patients.

The daily average number resident was 654 (males 371, females 283) compared with 619 for 1929; 612 for 1928; 612 for 1927; 582 for 1926 and 557 for 1925. The maximum daily number resident during the year was 681 (males 385, females 296) compared with 643 (males 374, females 269) for 1929.

7.—*Criminal Mental Patients*

	M	F	T
In Hospital on 31.12.29	14	...	14
Admitted during 1930	5	...	5
Readmitted from probation leave	1	...	1
Discharged or dealt with under Art. 60 Ord. 23 of 1906	3	...	3
Died during 1930	..	...	...
Remaining on 31.12.30	17	...	17

Of the 5 criminal mental patients admitted during the year one P..., N..., aged 35, an untried prisoner charged with vagrancy, suffered from acute melancholia Another, R..., B..., aged 28, committed for larceny and forest contravention, suffered from manic depressive insanity. The third criminal mental patient G..., G..., aged 40, a chronic melancholiac, was indicted for distilling rhum without licence. The fourth case, D..., G..., aged 13, came from the Industrial School where he had been sent after conviction for larceny. This boy is an epileptic feebleminded. And, lastly, J..., L..., a moral imbecile aged 22, was arrested for being in possession of stolen property.

8. The following table shows the duration in hospital to 31.12.30 of the 643 certified resident patients :—

	M	F	T
1 year or less ...	49	51	100
Between 1 and 2 years ...	41	19	60
„ 2 and 3 „ ...	27	23	50
„ 3 and 4 „ ...	21	12	33
„ 4 and 5 „ ...	22	18	40
„ 5 and 6 „ ...	24	9	33
„ 6 and 7 „ ...	19	16	35
„ 7 and 8 „ ...	20	7	27
„ 8 and 9 „ ...	12	7	19
„ 9 and 10 „ ...	13	8	21
„ 10 and 15 „ ...	29	44	73
„ 15 and 20 „ ...	33	31	64
„ 20 and 25 „ ...	22	11	33
„ 25 and 30 „ ...	19	11	30
Over 30 years ...	13	12	25
Total ...	364	279	643

It will be seen from the above table that more than half of the total number of patients have been in hospital 5 years or more, the prognosis in the majority of these cases being hopeless.

9.—*Admissions.*

	1929			1930		
	M	F	T	M	F	T
1st admissions, certified patients ...	55	38	93	52	44	96
2nd admissions, „ ...	15	8	23	12	9	21
3rd admissions, „ ...	2	...	2	...	3	3
4th admissions, „ ...	1	...	1	...	...	...
Readmissions from probation leave ...	32	16	48	32	21	53
„ leave under G.N. 239/24	33	16	49	13	18	31
Admitted under interim detention, later found not to be proper persons to be kept in hospital and accordingly released ...	21	13	34	20	14	34
Admitted under interim detention but not certified or released on 31.12.30 ...	4	4	8	5	5	10
Admitted under interim detention and died whilst so detained ...	1	...	1	1	1	2
Total ...	164	95	259	135	115	250

The above table shows that in 1930 there were admitted into the Mental Hospital as certified insane (1st, 2nd and 3rd admissions) a total of 120 patients (males 64, females 56), hereunder referred to as direct admissions.

Included in the 120 direct admissions are 4 male and 3 female patients who were under interim detention on 31.12.29 and were certified during 1930.

10. Table showing the districts whence came the 120 direct admissions and the insane rate per 10,000 of the population of such districts :—

Districts	Number of direct admissions	Estimated population of districts on 31.12.30	Insane rate per 10,000 of population
Plaines Wilhems	46	90,516	5.0
Port Louis	29	53,988	5.3
Grand Port	11	51,579	2.1
Pamplemousses	10	36,720	2.7
Moka	8	33,601	2.3
Flacq	6	54,552	1.1
Savanne	4	35,226	1.1
Rivière du Rempart	3	34,302	0.8
Black River	1	13,974	0.7
Total	118	404,458	2.9
Rodrigues	2	...	...

From the above it will be seen that the incidence of insanity in the agricultural districts is much lower than in the industrial and commercial centre of Port Louis.

11. The following table shows the probable causes of insaniiy in the case of 105 direct admissions :—

Causes	M	F	T
Heredity:			
Insane	8	10	18
Epileptic	...	1	1
Neurotic	...	1	1
Marked eccentricity and alcoholism	2	...	2
Mental Instability:			
Moral deficiency and eccentricity	...	...	...
Feeblemindedness	...	...	...
Deprivation of special senses	...	...	...
Critical periods:			
Puberty and adolescence	...	...	...
Climacteric	...	...	...
Senility	7	6	13
Child bearing:			
Pregnancy	...	...	...
Puerperium	...	6	6
Lactation	...	...	...
Mental stress:			
Sudden	5	7	13
Prolonged	9	4	12
Physiological defects and errors:			
Malnutrition in early life	..	...	...
Privation and starvation	3	1	4
Physical overexertion	...	...	...
Masturbation and sexual excess	...	...	...
Traumatic:			
Injuries	1	...	1
Operations	...	1	1
Sunstroke	...	...	...
Diseases of Nervous system:			
Brain lesions	...	...	...
Lesions of spinal cord and nerves	...	...	...
Epilepsy	10	9	19
Convulsions	3	3	6
Neuroses	...	...	...
Night terrors	...	...	...

Causes	M	F	T
Toxic :			
Syphilis	5	2	7
Alcohol	9	...	9
Drugs, e.g. gandia, opium,cocaine, etc.	...	...	...
Lead and other metals	...	...	...
Tetanus	...	1	1
Malaria	17	13	30
Influenza	...	1	1
Enteric	1	...	1
Other specific fevers	...	...	...
Sepsis : dental, tonsils, sinuses, etc.	1	1	2
Ankylostomiasis	3	...	3
Phthisis	...	...	...
Dysentery : amœbic	1	1	2
,, bacillary	...	...	...
,, other types	...	...	...
Other Toxins ...	...	...	...
Other bodily affections :			
Arteriosclerosis	...	...	...
Other cardiovascular lesions	...	...	...
Urinary	1	...	1
Respiratory	3	...	3
Thyroid and pituitary disorders	...	...	...
Beri-beri, pellagra, diabetes, uræmia	...	...	...

In examining the above table it should be borne in mind that one or more of the causes enumerated therein may be responsible for the production of the mental illness, hence the excess of the aggregate of such causes over the number of patients considered.

Heredity, mental stress, malaria, epilepsy, senility, alcohol and syphilis are as usual prominent etiological factors.

ALCOHOLISM

12. Of the 9 alcoholics admitted during the year 6 were Creoles and 3 Indians. All were males.

The following table gives the districts whence came the alcoholics admitted during 1927, 1928, 1929 and 1930:

Districts	1927	1928	1929	1930
Port Louis ...	1	6	7	3
Plaines Wilhems	4	4	3	2
Rivière du Rempart	2	1	1	...
Savanne ...	...	1	1	2
Grand Port	2	...	1	1
Moka ...	...	1	1	...
Flacq ...	...	...	...	...
Pamplemousses	...	...	2	...
Black River	...	...	...	1
Total ...	9	13	16	9

DISCHARGES

13. The total number of discharges during the year was 192 as against 196 in 1929.

The following table shows the classification of discharges for 1929 and 1930 :—

	1929			1930		
	M	F	T	M	F	T
Discharged recovered	1	4	5	1	0	1
,, relieved	63	42	105	66	45	111
,, not improved	2	3	5	4	1	5
,, on leave under G.N. 239/24	33	14	47	18	19	37
Alleged mental patients found sane and released	21	13	34	20	15	35
Transferred to Moka and Victoria Hospitals	...	...	...	...	3	3
Total ...	120	76	196	109	83	192

The percentage of discharges (recovered, relieved, not improved) to admissions (direct admissions plus readmissions from probation) was 67.6 (males 73.9, females 59.7) compared with 68.8 for 1929 (males 62.8, females 79.0).

During the year 17 patients, (6 males, 11 females) out on probation leave, were found cured and finally discharged.

DEATHS

14. During the year there were 28 deaths (males 17, females 11) as against 22 in 1929 (males 14, females 8). Of these deaths 5 took place within one month of admission at the Mental Hospital and were mainly due to the poor state of health of the patients admitted. The death rate, calculated on the daily average number of patients resident, was 4.28% (males 4.58%, females 3.88%) compared with 3.55% for 1929 (males 3.92%, females 3.05%).

The following table gives the causes of death and the number of patients who died from each cause :—

Causes	M.	F.	T.
Acute lobar pneumonia	4	2	6
Bronchiectasis	2	1	3
Cerebral Haemorrhage	2	1	3
Status Epilepticus	1	1	2
Senility	2	...	2
Chronic Nephritis and uræmia ...	...	2	2
Pleurisy	1	...	1
Chronic bronchitis and enteritis ...	1	...	1
Erysipelas	...	1	1
Phthisis	1	...	1
General paralysis of the insane ...	1	...	1
Ankylostomiasis	...	1	1
Cholecystitis	1	...	1
Tuberculous peritonitis	...	1	1
Cerebral malaria	1	...	1
Cancer of the ovary	...	1	1
Total ...	17	11	28

9 post-mortem examinations were made, giving a percentage of 32.1 of total deaths.

PREVALENCE OF SICKNESS

15. The following table gives the number of cases treated in both Infirmaries, the daily average of sick and the sick rate for the years 1929, 1930 :—

	1929			1930		
	M.	F.	T.	M.	F.	T.
No. of cases treated in Infirmaries ...	257	168	425	166	107	273
Daily average of sick in Infirmaries ...	4.98	5.57	10.28	5.48	4.22	9.70
Sick rate per cent calculated on daily average number of patients in hospital	1.39	2.01	1.65	1.47	1.49	1.48

The above table shows that patients suffered less from bodily ailments in 1930 than in 1929.

16. Table of monthly admissions into the two Infirmaries, total stay therein, and average stay per patient for the years 1929, 1930 :—

1929			
Months	M	F	T
January	17	13	30
February	13	11	24
March	55	21	76
April	35	13	48
May	29	23	52
June	11	16	27
July	11	11	22
August	23	18	41
September... ...	18	6	24
October	16	18	34
November... ...	16	9	25
December	13	9	22
Total...	257	168	425
Total stay in days	1960	1880	3840
Average stay per patient...	7.66	11.19	9.03

1930			
Months	M	F	T
January	24	11	35
February	15	7	22
March	7	5	12
April	8	6	14
May	15	11	26
June	16	14	30
July	18	6	24
August	15	15	30
September... ...	12	7	19
October	4	8	12
November... ...	17	7	24
December	15	10	25
Total...	166	107	273
Total stay in days	2005	1544	3549
Average stay per patient...	12.07	14.42	13 00

17. The following table shows the monthly admissions into both Infirmaries for the commoner diseases:—

Diseases	January	February	March	April	May	June	July	August	September	October	November	December	Total
Malaria	3	3	3	1	7	7	4	2	4	...	5	8	47
Epilepsy	3	1	...	2	4	3	2	4	2	2	1	1	25
Abscesses	2	1	.	2	2	2	...	3	2	1	2	2	19
Dysentery, amoebic ...	...	1	1	1	2	...	2	...	2	1	...	1	11
„ other types ...	2	1	1	...	...	...	3	2	1	1	3	3	17
Influenza	...	2	2	1	...	1	2	1	...	1	1	...	11
Ulcers	2	...	...	1	...	3	...	1	...	...	1	1	9
Asthma	...	1	...	1	...	1	...	1	...	1	1	1	7
Lobar pneumonia ...	...	1	1	...	...	...	...	...	1	...	1	3	7
Acute enteritis ...	1	...	1	...	2	...	1	1	1	...	...	...	7
Phthisis	...	...	...	..	2	...	2	...	...	...	1	1	6
Bronchiectasis ...	1	1	...	2	...	...	...	...	...	1	...	...	5
Sprain	...	3	...	...	...	...	...	...	...	...	2	...	5
Measles	2	3	...	...	...	...	...	...	...	...	...	...	5
Cerebral haemorrhage ...	...	...	...	...	...	1	1	1	1	...	1	...	5
Boils	...	...	...	...	.	1	1	...	...	1	1	...	4
Ankylostomiasis ...	...	1	...	...	1	...	...	1	...	...	...	...	3
Eczema ...	2	...	...	...	...	...	...	...	...	...	1	...	3
Acute gastritis ...	...	1	...	...	1	...	...	...	...	...	...	1	3
Chronic nephritis ...	...	...	1	...	1	...	...	...	...	...	...	...	2

18. *Infectious and allied diseases*

Dysentery cases numbered 28, in 11 of which the Entamoeba Hystolytica was present. Influenza cases numbered 11 as compared with 90 in 1929, when an epidemic of the disease occurred in March and April. Malaria accounted for 47 cases as against 54 for 1929. During the year 4 cases of phthisis needed active treatment, one of whom died. At present 2 only of our patients are known to suffer from some form of tuberculosis.

5 male patients developed measles during the year; 2 in January and 3 in February. There were no cases of Enteric.

19. *Violence, escapes, etc.*

There were no cases of suicide or homicide. 3 patients escaped but were caught and brought back within a few hours of their absence having been noticed.

The type and number of cases of injury sustained by patients were as follows:—

Self-inflicted	... ...	6
Inflicted by attendants	...	0
„ patients ...	...	83
„ accidentally	...	51

All these injuries were of a trivial nature except:

(i) An extra capsular fracture of the femur caused by the patient being pushed down by another;

(ii) A Colles's fracture in an old woman probably due to a fall. The matter was investigated but it could not be found out whether the injury was accidental or otherwise;

(iii) A fracture of the head of the fifth metacarpal caused by an accidental fall.

On 14 occasions members of the staff were injured by patients but, fortunately, in no case was the injury of a serious nature.

20. Table showing the classification of the 643 certified patients in hospital on 31.12.30 according to the types of mental disorder:

Types of mental disorder	M.	F.	T.
Primary dementia	42	19	61
Senile dementia	11	8	19
Terminal dementia	144	130	274
Amentia with Epilepsy	21	11	32
„ without Epilepsy	21	12	33
Mania, recent	3	6	9
„ recurrent	7	15	22
„ chronic	7	9	16
„ acute delirious	...	...	...
Melancholia, recent	11	5	16
„ recurrent	...	1	1
„ chronic	6	7	13
Insanity with gross brain lesions	...	...	...
Alternating insanity	9	3	12
Paranoia	5	2	7
Paraphrenia	9	8	17
Non-systematised delusional Insanity	11	5	16
Confusional Insanity	9	3	12
Epileptic Insanity	37	34	71
General paralysis of the insane	5	...	5
Volitional Insanity	...	...	...
Moral Insanity	5	1	6
Undiagnosed	1	...	1
Total	364	279	643

21. *Occupational treatment*

Properly equipped workshops are badly needed. During the year a daily average of 53 male patients, mostly Indians, attended to the vegetable gardens. All the laundry work of the hospital was done by female patients and this, together with ward work, kitchen work, darning, the upkeep of the hospital grounds, mattress making, carpentering and the manufacture of hospital tinware, gave employment daily to an average of 173 male and 107 female patients. On 1.7.30 we started a piggery with 5 sows and 1 boar of the Yorkshire breed. Part of the refuse food of the hospital is used for the feeding of these animals the remainder being sold by tender to the public. The whole installation, comprising sties, enclosures etc. was built by our patients who now manage it under the care of a servant.

The estimated value of the work done by the patients during the year, including institution garden produce, was Rs. 15,452.62.

22. *Restraint and Seclusion*

During the year mechanical restraint—strait-jacket—was resorted to in the case of 4 males and 2 females, and seclusion in the case of 2 males and 2 females.

The greatest duration for mechanical restraint was 7 hours and for seclusion 10½ hours.

23. *Recreation*

During 1930 the Police Band played 7 times at the hospital. Two cinematograph performances were given as well as two " treats " consisting of cakes, fruit, lemonade and other delicacies. Gramophone music is played during the week and always on Sundays. Cards, draughts, dominoes, chess and loto are favourite games. A few of the male patients play football on the grounds of the hospital. French and English papers and periodicals were sent us by people interested in the welfare of our patients but the numbers received were far below our requirements. We should be very grateful if more kind-hearted persons could send us their old papers and magazines, especially the illustrated ones.

The piano in the female department was occasionally used by patients, their friends and relatives.

24. *Cost of Maintenance*

The items making up the average weekly cost, per head, are given in the following table for the period 1.7.29 to 30.6.30 :—

		Rs. Cs.
Provision, fuel & light, not including Institution garden produce ...		116,822.53
Personal Emoluments		93,741.13
Clothing, bedding, uniforms and washing requisites		18,604.01
Surgery and dispensary—approximately—		3,000.00
Implements, stores, sundries		2,399.17
Fees for District Commissioners of Lunacy		2,175.00
Fees for member of Central Board		252.00
Recreation for patients		896.60
Telephones		171.97
Travelling and transport		302.96
Total ...		238,365.37
Less fees received from private patients :	Rs. 10,854.50	
„ sale price of refuse food :	„ 600.00	
Less		11,454.50
Net total expenditure		226,910 87
Average weekly cost per head		6.85

The following table gives the average weekly cost per head for the financial years 1926–27 to 1929–30 and the net total expenditure for those years :—

		1926-27	1927-28	1928-29	1929-30
Average weekly cost per head ...	Rs.	7.86	7.92	7.90	6.85
Net total expenditure ...	„	245,637.69	256,831.02	249,134.07	226,910.87
Daily average number of patients in hospital		601	623	606	637

The above table shows, for the financial year 1929–30, a marked reduction in the cost of maintenance per head.

It is interesting to compare these figures with the average weekly cost per patient for English County and Borough Mental Hospitals for the financial year 1926–27, viz 23.s.2⅝d.

25.—STAFF

The staff of the hospital consists of :

- 1 Medical Superintendent.
- 1 Assistant Medical Superintendent who also acts at present as Radio- to the Colony.
- 1 Steward and Accountant who also acts as Head Attendant.
- 1 Dispenser and Storekeeper.
- 1 Matron.
- 1 Assistant Matron.
- 13 male warders.
- 8 female nurses.
- 1 gatekeeper.
- 1 seamstress.
- 68 male servants.
- 45 female servants.

On 6.1.30 Miss S. Sharrock, a qualified Nurse, was appointed Assistant Matron, temporarily and provisionally, vice Miss A. Haskett who retired on pension.

On 29.5.30 Miss J. Gibson was appointed Nurse, vice Mrs. Narcisse.

On 25.4.30 Mr. M. Goder was appointed Warder vice Mr. U. Babet transferred to Rodrigues.

Mr. H. Herbu was appointed Warder on 1.6.30 in the place of Mr. R. Nallétamby, deceased

Warder J. B. A. Suzor resigned on 30.9.30.

26.—VISITS

His Excellency the Governor visited the Institution on 22.10.30 and His Lordship the Bishop of Mauritius on 15.3.30. Several members of the Commission of Enquiry on the Medical and Health Department also visited the hospital on 29.1.30.

During the year the Central Board of Commissioners of Lunacy held 12 monthly meetings and on each occasion visited the hospital. Apart from his monthly visits with the Central Board the Honourable Medical Director also called at the hospital on 12 occasions.

Two Boards of survey were held and our accounts and stores were checked once by the Financial Assistant, Medical and Health Department, and 16 times by an Audit Inspector. No irregularities were detected.

27.—RELIGIOUS SERVICES

During the year Mass was said on 11 occasions. There were 2 Church of England services.

An average of 40 patients attended each Roman Catholic service.

28.—CONCLUSION

To conclude, I wish to thank the Honourable Medical Director and the members of the Central Board of Commissioners of Lunacy for their valuable help in improving the welfare of our patients.

Beau Bassin,
20.4.31

J. D. DYSON,
M. B. B. S. Lond. D.P.M.
Medical Superintendent, Mental Hospital.

APPENDIX V

FROM : THE MEDICAL SUPERINTENDENT, LEPER HOSPITAL.
TO : THE HONORABLE THE DIRECTOR, MEDICAL & HEALTH DEPARTMENT.

SUBJECT : *Forwarding report of work for the year 1930.*

Below is given in tabular form the figures of admissions, discharges and deaths—

	Men	*Women*
Remaining on 1.1.30	34	9
Admitted during year	6	5
Discharged do	5	—
Died	5	1
Remaining on 31.12.30	30	13

Admissions :—Out of the total of 11 cases, 4 cases concern former patients (1A_1 & 3 A_2) who sought re-admission either for further treatment in the case of the A_1 patient or because their crippled state did aot allow them to earn their livelihood.

The remaining seven cases were admitted after the Leprosy Board had examined them and a detention order obtained from a District Magistrate. They can be classified as per under—

A_2	B_1	B_2	B_3
3	1	1	2

In addition to the above two early cases (1 A_1 & 1 B_1) were detected and treated as out-patients.

Discharges :—Five disease-arrested cases were discharged as being no longer infective and because the patients were in a position to maintain themselves by their own means.

In this manner three of our old patients left us, the other two (1 A_2 & 1 B_1 case) being new cases admitted during the period under review. The B case was sufficiently improved to leave the Hospital but he is continuing treatment as out patient.

Deaths :—The cause of death was—

Pneumonia	1
Senility	1
Terminal enteritis in advanced nodular cases (B_3)	3
Oedema Glottedis	1

Classification and type of Disease :—As pointed out above we had on the 31.12.30, 43 in-patients and 3 out-patients.

The type of disease is shown below

	A_1	A_2	B_1	B_2	B_3
In-patients	2	24	4	4	7
Out-patients	1	—	2	—	—

The above total gives a total of 41 for in-patients. To this figure must be added a case of leucoderma who has been segregated for many years. The patient is extremely old and is not anxious for her discharge. The other case concerns a former patient who is cured but has lost his eyesight completely.

The classification noted above holds good for the condition of the patients as on the 31.12.30. During the year under review the improvement in the condition of the patients has enabled a number of them to move from B_3 to B_2 or even B_1 (in one instance) or from B_2 to B_1. The reverse has taken place in one instance whereby a B_2 patient has become a B_3, the result of intercurrent dysentery and malaria.

Syphilis and Leprosy :—Out of a total of 41 patients under detention 26 are A cases and 15 B cases.

The Kahn test for the B cases performed on several occasions during the year under review gave the following results—

positive ...	9
negative ...	6,

or 60% positive.

The figures for B_1, B_2 & B_3 types are still more illuminating

B_1 —	1 positive,	3 negative.
B_2 —	2 positive,	2 negative.
B_3 —	6 positive,	1 negative.

For the A cases the figures are 3 positive and 23 negative.

We have, of course, to deal with very limited figures. They seem to point out, taken for what they are worth, that syphilis is a very strong predisposing cause of leprosy in this country. The Kahn test performed with the sera of the 9 new cases detected during the year (7 in-patients and 2 out-patients) seems to bear out the same conclusion. The results were :

For A cases (4)	—	all negative
B cases (5)	—	4 positive and 1 negative.

The study of the new cases, as far as information can be obtained as to duration of disease, supports the inference that syphilis influences the evolution and enhances the virulence of the disease.

Treatment.—We are carrying out the treatment with *Hydnocarpus Wightiana* oil and with ester prepared by the cold method from the oil. N.A.B. was administered to one patient who received two courses of 5 grammes each of the drug. He stood the treatment exceedingly well. The other cases of leprosy complicated with syphilis are allowed courses of Avenyl dissolved in Hydnocarpus oil. I cannot report however that one or two courses of Avenyl have caused any change in the specific reaction of the patients' sera.

Occupational treatment.—During the year under review, we have placed every encouragement in the way of the patients to bring them to grow vegetables and fruit trees and to cultivate as much as possible of the expanse of land on which the Hospital stands. We have found a number of them keenly responsive to our initiative. They are thus provided with a congenial method of exercising their body and we feel certain that a good deal of the improvement noted in the more active of our patients is due to this form of treatment.

Visitors.—His Excellency the Governor visited the Leper Hospital on the 18th December last. The Honourable The Director of the Medical and Health Department and the District Magistrate Port Louis (2nd Division) visited the Hospital on two occasions. We were also honoured with the visit of the Honourable Samuel Fouquereaux, Elected Member for Pamplemousses. Mr. Magistrate Pierre Rousset accompanied the Elected Member on the occasion of his visit.

Recreations.—The patients were provided with a special treat on the occasion of the King's Birthday and on Christmas Day. They were also allowed two outings in May and September.

The Police Band played to the inmates on the 30.12.30, and a distribution of cakes and lemonade was held to the intense satisfaction of the inmates. This was followed up with a prize giving with the object of encouraging the inmates to enter still further into co-operation with us and with the many benefactors who presented us with prizes for the day and who are untiring in their efforts to provide extra comforts for our patients, visit them and cheer them up.

Of the numerous presents received, cigarettes and chocolates from His Excellency the Governor, cigarettes from the Elected Member for Pamplemousses, cakes, lemonades and "souvenirs" from Mme. Edesse Lagesse of Maison Blanche, Pamplemousses were greatly appreciated.

In conclusion, I wish to thank the Honourable the Director of the Medical and Health Department for the close interest he has evinced in everything tending to promote the welfare of our patients. I also wish to thank my staff for the loyal cooperation extended to me.

7th June, 1931.

H. ANDRÉ,
Medical Superintendent, Leper Hospital.

APPENDIX VI

PLAINES WILHEMS DISTRICT ANNUAL REPORT 1930

Scavenging.—The arrangements for the the performance of this service have remained the same as previously reported. The Boards of Beau-Bassin–Rose-Hill, Quatre Bornes, and Curepipe attend to the scavenging in their respective township, the first two by means of their own plant and staff and the Curepipe Board having recourse to a Contractor. Government stands responsible for the work where done outside urban areas. Contractors are employed for the villages in the Phœnix area, that of Vacoas and the extra urban area of Curepipe. A special gang of labourers under the supervision of the Sanitary Officers attend to the cleaning in Stanley hamlet. Save for Vacoas village where the Contractor fell seriously remiss in his work towords the end of the year the scavenging service in the district has on the whole proved satisfactory.

Night Soil Service.—There has been no change in the carrying out of this service during the year under review. The scheme inaugurated the year before of carrying out the service at Curepipe by the use of metal pails and motor vehicle transport provided by a Contractor, the removal of excreta and their disposal by septic tank installation remaining as heretofore under the care of Government has afforded a good measure of satisfaction, the service having greatly improved and failings brought down to a very low minimum. The limited bucket services performed in their township by the Boards of Beau-Bassin–Rose Hill and Quatre Bornes have been satisfactory. The work of the Contractor at Camp Fouquereaux was conspicuously neglected at a certain moment but it was soon brought into line by the imposition of heavy fines.

Plague.—There was no plague on man or rats during the year under report. A total of 15,857 rats were caught and destroyed, especially in Rose-Hill section where miscroscopical examination of the rodents caught is systematically carried out.

I made a limited survey of fleas collected in August—September from rats caught which gave the following results.—

Xenopsylla cheopis			Xenopsylla braziliensis			Ctenocephalus canis	Pulex irritans
Male	Female	Total	Male	Female	Total		
35	35	70	64	60	124	8	3

Xenopsylla astia was not met with. A few Gamasidae, possibly "Liponyssus bacoti" were also collected as well as three Pediculidae of the Genus Haematopinus possibly "Haematopinus spinulosus."

Other Notifiable Diseases.—The return under this heading is as follows:—

Section	Typhoid	Diphtheria	Puerperal Fever	Erysipelas	Tuberculosis
Curepipe ...	25	17	3	2	19
Vacoas Phœnix ...	8	4	1	...	12
Quatre Bornes Rose Hill Beau Bassin ...	62	8	16	12	92
Total ...	95	29	20	14	123

Compared with the figures for the preceding year the return for diphtheria shows a marked fall while that for typhoid is much higher. This apparent increase in the incidence of typhoid is explained by the fact that quite a number of cases admitted into the Victoria Hospital from other districts are registered in the Rose Hill section. The mortality was 26 cases for typhoid and 3 for diphtheria. The number of cases of Tuberculosis registered was less than for the preceding year; 82 cases were notified after death.

Schools.—Visits were paid to the Government and Primary Schools once in each half year for spleen examination of the pupils. The annexed returns show the results obtained.(*) The children generally appeared clean and in fair condition. The premises of the schools were on the whole found well upkept and the sanitary arrangements satisfactory.

Estates.—Inspections of the estate hospitals were as usual made twice during the course of the year and the general management was found satisfactory. The camps were on the whole maintained in a fair state of upkeep and the residents as noticed in the course of the visits made appeared contented.

General.—During the year under review the Sanitary Officers paid 7,449 visits to private premises and shops. Notices for the abatement of nuisances were served on 745 occasions and 415 contraventions of the Sanitary Laws and Regulations were established. In 274 cases which had to be taken to Court, the total amount of fines imposed by the Magistrates was Rs. 1,557.25. At the Phœnix and Lower Plaines Wilhems cemeteries, collection of fees brought in a total revenue of Rs. 4,043.80.

In the course of the year, the staff of the district lost an old and devoted member by the death of Sanitary Inspector Baretti which took place on the 28th of July.

I am pleased to report that the work of the staff was satisfactory.

June 9th 1931.

F. J. R. MOMPLÉ,
M. O. H. Plaines Wilhems

(*) Not printed.

APPENDIX VII.

REPORT FOR 1930 ON THE DISTRICTS OF MOKA, GRAND PORT AND SAVANNE

I have the honour to forward the annual report on the work done in the Southern Districts during 1930.

The statistics reveal a worse condition than in the preceding years attributable to the economic crisis which is constantly becoming more acute. 1929 had been a bad year for the elderly, 1930 has raised a heavy toll among the young, especially children under 10, of the lower classes, the result of underfeeding inseparable from the low rate of wages which has ruled and the relatively high cost of living and also of the epidemic of whooping cough.

Economic conditions bear directly on health ; these have been steadily working more and more adversely during the last six years—Compression of expenditure, in so far at any rate as Sanitation is concerned, has resulted. It involves a reduction of control and the impossibility of insisting upon improvements on the part of the public whose means hardly suffice for their material upkeep. Extension of cultivation on the other hand and the obtention of better yields of the only produce is not possible, the maximum having been reached. Further, Mauritius has a population almost double that it should normally be expected to support. The high price of sugar during the years immediately following the War brought about a corresponding increase in the value of land property which unfortunately has not been brought down concurrently with the fall in the selling value of the staple produce. So long as this fictitious value given to property is maintained and conditions are not allowed to revert to the normal [pre-war] standard, there will be no issue to the crisis and no stop to the deterioration of the health of the inhabitants.

SOIL SANITATION

3. The following table gives the number of pit and pail latrines in the districts—

District	Pit latrines	Pail latrines	Total
Moka	2,541	1,859	4,400
Savanne	3,307	762	4,069
Grand Port :			
Rose Belle ...	3,217	255	3,472
Mahebourg ...	2,162	225	2,387
Total ...	11,227	3,101	14,328

The number of new latrines provided during the year is pit, 191 ; pail, 36.

SCAVENGING

4. Government continues attending to the scavenging of Mahebourg, Rose Belle, New Grove and Mare d'Albert.

The other villages of the section are cleaned by Contractors who on the whole give satisfaction. With the exception of the Moka—St. Pierre Contractor no fines had to be imposed for neglect of service. The contract for the village mentioned terminated in the middle of the year and the service was entrusted to a new contractor who has hitherto discharged his obligations.

WATER SUPPLY

5. No change can be reported in this respect save that two or three additional standpipes have been provided at Grand Bois and Camp Rabaud where shortcomings in respect of the supply have given and still continue to give rise to complaints. The greater proportion of this supply, primarily intended for Savanne, is now diverted to Grand Port where the hamlets of Mare Tabac and Riv. du Poste now enjoy the advantages of a pipe supply. But unfortunately as in the case of Bois Cheri and Grand Bois although a long length of piping crosses the hamlets the number of standpipes is at a minimum, and despite the fact that the inhabitants pay a water rate, a large proportion still draw their water from the surface streams and wells constantly polluted by the washing of clothes etc.

ANTI-MALARIAL WORKS

6. No additional works have been carried out during the year.

The flood of December 29th 1929 caused considerable damage to the existing works especially at Pailles where the streams reverted to their original condition. By June after additional damage had been caused by heavy rains, the training of the streams had been restored. The irrigation system in connexion with Pailles canal which extends from Sorrèze at the foot of Mt. Ory to Ruisseau St. Louis affords far better conditions for the development of Anopheles than do the streams, and to it must in a large measure be attributed the high malaria incidence as revealed by the Pailles School spleen census below.

The upkeep of the 37454 feet of trained rivers and canals in Savanne and the 140983 feet in Grand Port has been satisfactory—The Moka section has passed from the San. Warden to the Director Malarial Services who is now entrusted with the carrying out and upkeep of works above the 600 foot contour line.

SPLEEN RATES—SPLEEN AVERAGES AND INSPECTION OF SCHOOLS

7. The schools were each inspected at least once during each of the two half years.

The tabular statement which follows mentions the schools which presented the highest rates.

School	First half year					Second half year				
	No. on Roll	No. examined	No. with spleen	Spleen rate	Spleen average	No. on Roll	No. examined	No. with spleen	Spleen rate	Spleen average
Moka										
Pailles R. C. Aided School ...	49	37	29	78·38	5·16	72	55	46	83·63	6·22
Savanne										
Rivière des Anguilles Government...	505	276	45	16· 8	1·68	549	362	38	10·49	1·32
Souillac Government	260	172	24	13· 9	1·49	270	177	29	16·38	1·46
do. Aided	205	109	21	19·26	1·59	195	115	21	15·44	1·37
Surinam	151	87	31	35·63	2·06	150	90	22	24·44	1·77
Chemin Grenier Government ...	338	234	34	14· 5	1·52	368	235	31	13·18	1·33
do. Aided ...	171	121	40	33·05	1· 9	181	127	22	17·32	1·44
Baie du Cap Aided	151	72	39	55·69	3·36	151	79	26	33·17	2·34
Grand Port										
Mare d'Albert Government ...	152	92	20	21·74	1·63	162	87	15	17·24	1·34
Plaine Magnien Government ...	154	93	66	70·96	4·96	174	107	68	63·73	4·87
do. Aided	119	61	45	75·41	4·54	143	78	49	62·69	4·10
Escalier Government	345	222	112	54·95	3·31	379	254	117	46·06	2·96
Riche-en-Eau Government ...	...	...	...	...	...	130	90	34	37 77	2·03
St. Hubert Aided	96	62	29	46·77	3·09	89	61	30	49·17	2·47
Mahebourg Boys Aided... ...	148	111	33	29·72	1·86	113	90	42	46·66	2·96
River Créoles Government ...	114	70	54	77·13	4 77	...	...	...	...	..
Old Grand Port Aided	122	66	34	51·51	3·07	141	81	17	20· 9	2·01
Bois Amourettes Aided... ...	107	42	27	64·28	3·42	100	61	21	34·42	1·88
Grand Sable Aided	74	44	28	63 63	3·61	64	25	14	56·00	3·68

MEDICAL INSPECTION OF ESTATE HOSPITAL AND INSPECTION OF CAMPS

8. The number of estates provided with hospitals for the treatment of their sick is as follows :

Moka	4
Grand Port ...	11
Savanne	10

against 4, 16 and 13 respectively in 1924—A further reduction will be reported at the end of the current year—This policy is the result of the suppression of indentured labour and tells unfavourably on the health of the Indian labourers who in the past received proper care and free treatment from their employers. Simultaneously the number of men employed by the month on all sugar estates has greatly diminished, these employing more and more free or casual labour with consequent reduction in the Camp population and increase in that of the free villages. A heavier call on Govt. assistance has resulted while sanitary control has become more difficult and complicated. The hospitals as well as the camps were each inspected twice during the year. With the exception of one estate—the conditions were found satisfactory.

COMMUNICABLE DISEASES

9. The following table gives the number of cases notified of each disease falling under Ord. 47 of 1925.

District	Diphtheria		Typhoid		Erysipelas		Measles		Puerperal Fever		Tuberculosis	
	Cases	Death	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Moka	2	...	22	5	1	...	...	...	4	4	38	30
Savanne	...	...	19	5	1	...	...	...	1	1	46	37
Grand Port :												
Rose Belle	...	...	21	6	2	...	...	...	...	...	16	10
Mahebourg	..	...	15	3	2	...	...	...	2	2	23	13

Typhoid.—87 cases were notified against 45 the previous year, the great majority occurring towards the end of the Port Louis and Plaines Wilhems epidemics with which they were closely connected.

Tuberculosis.—No great value need be attached to the figures given above.

Dysentery—Diarrhoea and Enteritis.—128 deaths due to dysentery and 377 to diarrhoea and enteritis were declared at the Civil Status during the year. Although no epidemic focus existed, the prevalence of the complaints cannot but be attributed to defective water supply—Reference has been made above to the insufficient number of standpipes in the villages and hamlets provided with pipe supplies. To this should be added the dependance of most sugar estates and many a hamlet on either open canal supplies, or surface streams and wells.

Ankylostomiasis.—There does not appear to be marked improvement in this respect. Neither is there any hope to be tendered for many years to come. Latrines have been provided but unfortunately the proportion of the labouring classes utilising them is very small. At the time oiling was performed by Government the inhabitants considered the care exercised as an indication of the importance of the latrine. It had far more educative value than lectures which are listened to by a few, understood by less and forgotten by all.

Whooping Cough.—An epidemic at first benign but which later assumed a severe character prevailed during the second half of the year. The exact number of deaths due to it cannot be given as a large number were reported as due to the various lung diseases. This epidemic affecting more particularly the very young, was more fatal among the lower classes which suffering from the conditions mentioned in the first part of this report proved less resistant.

MARKETS

10. There is only one market—that of Mahebourg—of the open type in the Southern Districts. Meat is sold in specially approved shops while fish and vegetables are either hawked or sold in open stalls under shop verandahs along the streets—It has not as yet been found possible to do away with the objectionable practice.

SLAUGHTER HOUSES

11. Govt. abattoirs exist at Mahebourg and Souillac and private ones at Rose Belle, St. Pierre and Riv. des Anguilles. The Govt. institutions are in need of serious repairs.

Heifers are only slaughtered on production of certificate from the Government Veterinary Surgeon authorising same.

The slaughtering at the various abattoirs is carried out under the control of the Sanitary Inspector, doubtful cases being referred to the Government Veterinary Surgeon.

CEMETERIES.

12. The Health Department is responsible for the burial of the dead and the unkeep of Cemeteries except where privately owned.

3,023 burials were effected in the public cemeteries and Rs. 5,868.00 cashed on account of fees.

The fines imposed by the various Courts amounted to Rs. 1,352.15.

One milk seller was sentenced to one month's imprisonment.

The total number of visits paid by the staff to private premises in addition to the regular inspections made of the various Government institutions, slaughter houses, sugar estate camps amounts to 35.752.

The number of disinfections on account of contagious disease amounts to 211.

18th April 1931.

A. G. MASSON,
Sanitary Warden South.

APPENDIX VIII

RETURN OF DISEASES AND DEATHS (IN PATIENTS) FOR THE YEAR 1930

DISEASES	Remaining in Hospital at end of 1929	Yearly Total		Total cases treated	Remaining in Hospital at end of 1930
		Admissions	Deaths		
I.—Epidemic Endemic and Infectious Diseases					
1. Enteric Group—					
(*a*) Typhoid Fever	6	196	47	202	3
(*b*) Paratyphoid A.	...	1	...	1	...
(*c*) Paratyphoid B.	...	...	...	...	...
(*d*) Type not defined	...	1	...	1	...
2. Typhus	...	...	...	...	...
3. Relapsing Fever	...	...	...	...	...
4. Undulant Fever	...	..	...	...	...
5. Malaria—					
(*a*) Tertian and double Tertian ...	21	3,191	42	3,212	37
(*b*) Quartan	...	60	...	60	...
(*c*) Aestivo-autumnal	...	13	...	13	1
(*d*) Cachexia	4	595	38	599	6
(*e*) Blackwater	1	28	5	29	...
(*f*) Chronic	3	17	...	20	1
(*g*) Irregular	...	14	...	14	...
6. Smallpox—					
Alastrim	...	...	...	...	...
7. Measles	1	16	...	17	...
8. Scarlet Fever	...	...	...	...	...
9. Whooping Cough	...	133	5	133	11
10. Diphtheria	1	14	4	15	...
11. Influenza	... 4	763	20	767	...
12. Miliary Fever	...	...	...	...	11
13. Mumps	...	...	...	...	...
14. Cholera	...	...	...	...	...
15. Epidemic diarrhoea	...	...	...	...	...
16. Dysentery—					
(*a*) Amœbic	4	326	18	330	9
(*b*) Bacillary	...	13	...	13	...
(*c*) Undefined or due to other causes ...	2	279	19	281	5
17. Plague—					
(*a*) Bubonic	...	...	...	..	...
(*b*) Pneumonic	...	...	...	...	...
(*c*) Septicæmic	...	...	...	...	...
(*d*) Undefined	...	...	...	...	...
18. Yellow Fever	...	..	...	...	...
19. Spirochætosis ictero-hæmorrhagica ...	...	...	...	...	...
20. Leprosy	..	3	...	3	...
21. Erysipelas	1	38	9	39	...
22. Acute Poliomyelitis	...	...	...	...	...
23. Encephalitis Lethargica	...	...	...	...	...
24. Epidemic Cerebro-spinal Fever ...	...	...	...	...	...
25. Other Epidemic Diseases—					
(*a*) Rubeola (German Measles) ...	...	1	...	1	...
(*b*) Varicella (Chicken-pox) ...	...	6	...	6	...
(*c*) Kala-azar	...	...	...	...	...
(*d*) Phlebotomus Fever	...	...	...	...	...
(*e*) Dengue	...	...	...	...	...
(*f*) Epidemic Dropsy	...	...	..	...	...
(*g*) Yaws	...	...	...	...	...
(*h*) Trypanosomiasis	...	...	...	...	...
26. Glanders	...	...	...	...	...
27. Anthrax	...	4	...	4	...
28. Rabies	...	...	...	...	...
29. Tetanus	...	22	7	22	1
30. Mycosis	...	1	...	1	...
31. Tuberculosis, Pulmonary and Laryngeal ...	16	792	145	808	23
32. Tuberculosis, of the Meninges or Central Nervous System	...	2	1	2	...
33. Tuberculosis of the Intestine or Peritoneum.	...	12	4	12	
34. Tuberculosis of the Vertebral Column ...	...	7	...	7	..
35. Tuberculosis of Bones and Joints ...	...	12	2	12	
Total carried over	64	6,560	366	6,624	112

DISEASES	Remaining in Hospital at end of 1929	Yearly Total		Total cases treated	Remaining in Hospital at end of 1930
		Admissions	Deaths		
Brought Forward	64	6,560	366	6,624	112
I.—Epidemic Endemic and Infectious Diseases.—(Contd).					
36. Tuberculosis of other organs—	2	15	…	17	…
(*a*) Skin or Subcutaneous Tissue(Lupus)	…	6	…	6	…
(*b*) Bones	2	21	…	23	2
(*c*) Lymphatic System	1	26	…	27	…
(*d*) Genito-urinary	…	2	…	2	…
(*e*) Other Organs	…	11	…	11	…
37. Tuberculosis disseminated	…	…	…	…	…
(*a*) Acute	…	…	…	…	…
(*b*) Chronic	…	…	…	…	…
38. Syphilis—					
(*a*) Primary	…	27	…	27	3
(*b*) Secondary	1	20	…	21	…
(*c*) Tertiary	2	74	3	76	4
(*d*) Hereditary	…	34	6	34	…
(*e*) Period not indicated	7	155	3	162	5
39. Soft Chancre	6	103	…	109	8
40. A.—Gonorrhœa and its complications	1	197	…	198	8
B.—Gonorrhœal Ophthalmia	…	27	…	27	…
C.—Gonorrhœal Arthritis	…	9	…	9	1
D.—Gonorrhœal Venereum	…	…	…	…	…
41. Septicæmia	…	9	7	9	…
42. Other Infectious Diseases—					
(*a*) Trypanosomiasis	…	…	…	…	…
(*b*) Filariasis	…	15	…	15	…
II.—General Diseases not mentioned above					
43. Cancer or other malignant Tumours of the Buccal Cavity	…	6	1	6	…
44. Cancer or other malignant Tumour of the Stomach or Liver	…	27	6	27	…
45. Cancer or other malignant Tumours of the Peritoneum Intestines, Rectum	…	15	2	15	…
46. Cancer or other malignant Tumours of the Female Genital Organs	2	87	8	89	3
47. Cancer or other malignant Tumours of the Breast	…	7	1	7	1
48. Cancer or other malignant Tumours of the Skin	…	6	…	6	1
49. Cancer or other malignant Tumours of Organs not specified	…	16	6	16	…
50. Tumours not malignant	2	81	3	83	2
51. Acute Rheumatism	6	132	…	138	…
52. Chronic Rheumatism	5	154	…	159	2
53. Scurvy (including Barlow's Disease)	…	…	…	…	…
54. Pellagra	…	…	…	…	…
55. Beri-Beri	…	10	1	10	…
56. Rickets	…	1	…	1	…
57. Diabetes (not including Insipidus)	…	58	7	58	1
58. Anæmia—					
(*a*) Pernicious	..	13	5	13	…
(*b*) Other Anæmias and Chlorosis	4	140	20	144	6
59. Diseases of the Pituitary Body	…	…	…	…	…
60. Diseases of the Thyroid Gland—					
(*a*) Exophthalmic Goitre	…	…	…	…	…
(*b*) Other diseases of the Thyroid Gland, Myxœdema	…	1	…	1	…
61. Diseases of the Para-Phyroid Glands	…	…	…	…	…
62. Diseases of the Thymus	…	…	…	…	…
63. Diseases of the Supra-Renal Glands	…	…	…	…	…
64. Diseasee of the Spleen	…	57	5	57	…
65. Leukæmia—					
(*a*) Leukæmia	…	…	…	…	…
(*b*) Hodgkin's Diseases	…	…	…	…	…
Total carried over	105	8,122	450	8,227	159

DISEASES	Remaining in Hospital at end of 1929	Yearly Total		Total cases treated	Remaining in Hospital at end of 1930
		Admissions	Deaths		
Brought forward	105	8,122	450	8,227	159
II.—*General Dieeases not mentioned above.*—(Contd.)					
66. Alcoholism	...	31	2	31	...
67. Chronic poisoning by mineral substances (lead, mercury, &c.)	...	...	...	...	...
68. Chronic poisoning by organic substances (Morphia, Cocaine &c.)	...	...	...	...	...
69. Other General Diseases—					
Auto-intoxication	...	2	...	2	...
Purpura Hæmorrhagica	...	...	...	...	...
Hæmophilia	...	1	...	1	...
Diabetes Insipidus	1	5	...	6	1
III.—*Affections of the Nervous System and organs of the senses*					
70. Encephalitis not including Encephalitis Lethargica	...	2	...	2	...
71. Meningitis (not including Tuberculous Meningitis or Cerebrospinal Meningitis)...	...	6	3	6	...
72. Locomotor Ataxia	...	...	...	...	...
73. Other affections of the Spinal Cord ...	...	...	...	...	...
74. Apoplexy	...	4	2	4	...
(*a*) Hæmorrhage	...	51	12	51	2
(*b*) Embolism	...	2	...	2	...
(*c*) Thrombosis	...	...	...		...
75. Paralysis—					
(*a*) Hemiplegia	1	53	2	54	4
(*b*) Other Paralyses	...	14	1	14	2
76. General Paralysis of the Insane ...	...	...	...	...	...
77. Other forms of Mental Alienation ...	...	7	...	7	...
78. Epileysy	1	69	4	70	2
79. Eclampsia, Convulsion (nonpuerperal) 5 years or over	...	3	1	3	...
80. Infantile Convulsions	...	12	3	12	...
81. Chorea	...	...	...	...	...
82. A.—Hysteria	...	16	...	16	...
B.—Neuritis	...	30	...	30	...
C.—Neurasthenia	...	10	...	10	1
D.—Neuralgia	...	20	...	20	1
83. Cerebral Softening	...	2	...	2	...
84. Other affections of the nervous System, such as Paralysis Agitans	1	12	...	13	...
85. Affections of the Organs of Vision—					
(*a*) Diseases of the Eye	4	185	...	189	1
(*b*) Conjunctivitis	2	72	...	74	...
(*c*) Trachoma	...	...	...	...	...
(*d*) Tumours of the Eye	1	...	...	1	...
(*e*) Other affections of the Eye ...	6	226	...	232	3
86. Affections of the Ear or Mastoid Sinus ...	1	113	3	114	3
Other affections of the ear	...	18	...	18	...
IV.—*Affections of the Circulatory System*					
87. Pericarditis	...	8	3	8	...
88. Acute Endocarditis or Myocarditis ...	3	20	7	23	...
89. Angina Pectoris	...	5	2	5	...
90. Other Diseases of the Heart	...	3	1	3	...
(*a*) Valvular—					
Mitral	2	118	32	120	3
Aortic	...	22	1	22	...
Tricuspid	...	...	...	...	...
Pulmonary	...	2	1	2	...
(*b*) Myocarditis	...	87	18	87	1
91. Diseases of the Arteries—					
(*a*) Aneurysm	...	4	1	4	...
(*b*) Arterio-Sclerosis	2	69	3	71	2
(*c*) Other diseases	...	23	5	23	...
Total carried over	130	9,449	557	9,579	185

DISEASES	Remaining in Hospital at end of 1929	Yearly Total		Total cases treated	Remaining in Hospital at end of 1930
		Admissions	Deaths		
Brought forward	130	9,449	557	9,579	185
IV.—*Affections of the Circulatory Systems.*—(Contd.)					
92. Embolism or Thrombosis (non-cerebral)	...	3	1	3	...
93. Diseases of the Veins—					
Hæmorrhoids	...	211	...	211	3
Varicose Veins	2	22	...	24	...
Phlebitis	1	3	...	4	...
94. Diseases of the Lymphatic System—					
Lymphangitis	1	46	...	47	...
Lymphadenitis, Bubo (non-specific)	2	324	...	326	5
95. Hæmorrhage of undetermined cause	...	...	...	...	
96. Other affections of the Circulatory System	2	32	11	34	1
V.—*Affections of the Respiratory System*					
97. Diseases of the Nasal Passages—		6	...	6	...
Adenoids	...	13	...	13	...
Poypus	...	22	...	22	...
Rhinitis	...	20	...	20	...
Coryza	1	2	...	3	...
Sinusitis	1	13	...	14	...
98. Affections of the Larynx—Laryngitis	...	8	...	8	1
99. Bronchitis	...	...	...	..	...
(*a*) Acute	10	399	22	409	2
(*b*) Chronic	6	359	26	365	7
100. Broncho-Pneumonia	3	137	55	140	2
101. Pneumonia	...	58	26	58	...
(*a*) Lobar	3	76	24	79	1
(*b*) Unclassified	11	271	85	282	8
102. Pleurisy, Empyema	...	67	5	67	2
103. Congestion of the Lungs	...	12	3	12	...
104. Gangrene of the Lungs	...	4	2	4	...
105. Asthma	5	304	8	309	2
106. Pulmonary Emphysema	...	22	1	22	...
107. Other affections of the Lungs—	...	17	6	17	...
Pulmonary Spirochætosis	...	...	...	...	...
VI.—*Diseases of the Digestive System*					
108. A—Diseases of Teeth or Gums—					
Caries, Pyorrhœa, &.	2	179	...	181	3
B—Other affections of the Mouth—					
Stomatitis	...	33	1	33	...
Glossitis, &c.	...	8	1	8	...
109. Affections of the Pharynx or Tonsils—					
Tonsillitis	1	162	...	163	...
Pharyngitis	1	16	...	17	...
110. Affections of the Œsophagus	...	4	...	4	...
111. A.—Ulcer of the Stomach	1	74	6	75	1
B.—Ulcer of the Duodenum	1	77	7	78	1
112. Other affections of the Stomach—					
Gastritis	1	108	...	109	...
Dyspepsia, etc.	...	278	2	278	3
113. Diarrhœa and Enteritis—	4	170	43	174	2
Under two years	...	...	...	...	...
114. Diarrhœa and Enteritis—					
Two years and over	3	640	100	643	3
Colitis	1	50	17	51	...
Ulceration	...	1	...	1	...
114a Sprue	...	...	...	...	...
115. Ankylostomiasis	16	2,482	81	2,498	22
116. Diseases due to Intestinal Parasites—					
(*a*) Cestoda (Tænia)	...	3	...	3	...
(*b*) Trematoda (Flukes)	...	...	...	...	...
(*c*) Nematoda (other than Ankyalostoma)—					
Ascaris	...	150	6	150	1
Trichocephalus dispar	...	...	...	...	...
Total carried over	209	16,325	1,096	16,544	255

DISEASES	Remaining in Hospital at end of 1929	Yearly Total		Total cases treated	Remaining in Hospital at end of 1930
		Admissions	Deaths		
Brought forward... ...	209	16,335	1,096	16,544	255
VI.—*Diseases of the Digestive System.*—(Contd.)					
Trichina	...	...	...	...	...
Dracunculus	...	2	...	2	...
Strongylus	...	...	...	...	...
Oxyuris	...	2	2	2	...
Amalluiasis	...	35	9	36	...
(*d*) Coccidia	1	...	...	...	...
(*e*) Other parasites	...	56	6	56	2
(*f*) Unclassified	...	49	...	49	...
117. Appendicitis	5	303	3	308	5
118. Hernia	4	175	4	179	2
119. A.—Affections of the Anus, Fistula, &c. ...	1	142	...	143	5
B.—Other affections of the Intestines—	...	35	2	35	1
Enteroptosis	...	...	...	...	...
Constipation	...	65	...	65	...
Obstruction	...	2	2	2	...
120. Acute yellow atrophy of the Liver ...	...	...	...	...	...
121. Hydatid of the Liver	...	4	2	4	...
122. Cirrhosis of the Liver	...	5	...	5	...
(*a*) Alcoholic	1	1	...	2	...
(*b*) Other Forms	...	31	3	31	...
123. Biliary Calculus	...	8	...	8	...
124. Other affections of the Liver—					
Abscess	...	21	6	21	1
Hepatitis	2	114	3	116	3
Cholecystitis	1	75	2	76	3
Jaundice	...	6	1	6	...
125. Diseases of the Pancreas	...	2	1	2	...
126. Peritonitis (of unknown cause) ...	...	12	8	12	...
127. Other affections of the Digestive System...	2	112	5	114	5
VII.—*Diseases of the Genito-urinary System* (*non-Venereal*)					
128. Acute Nephritis	3	258	42	261	9
129. Chronic	4	329	77	333	2
130. A.—Chyluria	...	2	...	2	...
B.—Schistosomiasis	2	65	1	67	1
Bilhariasis	...	59	1	59	...
131.—Other affections of the Kidneys—					
Pyelitis, etc.	...	31	7	31	...
132. Urinary Calculus	1	10	1	11	...
133. Diseases of the Bladder—					
Cystitis	2	140	8	142	3
134. Diseases of the Urethra—					
(*a*) Stricture	2	68	3	70	...
(*b*) Other	...	73	1	73	2
135. Diseases of the Prostate—					
Hypertrophy	...	18	...	18	...
Prostatitis	1	16	1	17	...
136. Diseases (non-Venereal) of the Genital Organs of Man	...	11	...	11	1
Epididymitis	...	8	...	8	...
Orchitis	1	85	...	86	1
Hydrocele	2	226	...	228	2
Ulcer of Penis	...	32	...	32	1
Other Diseases	...	65	...	65	1
137. Cysts or other non-malignant Tumours of the Ovaries	...	21	...	21	...
138. Salpingitis	1	77	4	78	1
Abscess of the Pelvis	1	19	...	20	1
139. Uterine Tumours (non-Malignant) ...	...	23	1	23	...
140. Uterine Hæmorrhage non-puerperal ...	1	73	2	74	...
141. A.—Metritis	...	55	...	55	...
Total carried over	247	19,356	1,304	19,603	307

DISEASES	Remaining in Hospital at end of 1929	Yearly Total		Total cases treated	Remaining in Hospital at end of 1930
		Admissions	Deaths		
Brought forward	247	19,356	1,304	19,603	307
VII.—*Diseases of the Genito-urinary System (non-Venereal)*—(Contd.)					
B.—Other affections of the Female Genital Organs	...	42	1	42	2
Displacements of Uterus	...	57	...	57	3
Amenorrhœa	...	4	...	4	...
Dysmenorrhœa	...	4	...	4	...
Leucorrhœa	...	65	...	65	2
142. Diseases of the Breast (non-puerperal)—					
Mastitis	...	8	...	8	1
Abscess	...	79	...	79	1
VIII.—*Puerperal State*					
143. A.—Normal Labour	15	596	...	611	12
Pregnancy	...	10	...	10	...
B.—Accidents of Pregnancy—					
(*a*) Abortion	3	95	2	98	3
(*b*) Ectopic Gestation	...	4	1	4	...
(*c*) Other accidents of Pregnancy ...	...	31	4	31	1
(*d*) Caesarian section	...	4	...	4	...
144. Puerperal Hæmorrhage	...	4	2	4	...
145. Other accidents of Parturition ...	...	6	2	6	...
146. Puerperal Septicæmia	1	41	23	42	1
147. Phlegmasia Dolens	...	...	...	..	...
148. Puerperal Eclampsia	...	6	2	6	...
149. Sequelæ of Labour	...	10	2	10	...
150. Puerperal affections of the Breast ...	...	38	...	38	1
150*a*. Gestatio	2	108	2	110	4
IX.—*Affections of the Skin and Cellular Tissues*					
151. Gangrene	3	57	13	60	2
152. Boil	...	12	...	12	..
Carbuncle	1	69	...	70	3
153. Abscess	41	1,262	11	1,303	25
Whitlow	5	124	...	129	9
Cellulitis	7	369	12	376	13
154. A.—Tinea	...	...	...	...	...
B.—Scabies	...	260	...	260	3
155. Other Diseases of the Skin	8	107	...	115	5
Erythema	...	7	...	7	...
Urticaria	...	18	...	18	1
Eczema	2	106	...	108	4
Herpes	...	13	...	13	...
Psoriasis	...	15	1	15	...
Elephantiasis	...	21	...	21	1
Myiasis	...	...	...	...	...
Chigœs	...	...	...	...	...
Cutaneous Leishmaniasis.. ...	..	...	...	...	...
Ulcers	6	299	...	305	1
X.—*Diseases of the Bones and Organs of Locomotions (other than Tuberculous)*					
156. Diseases of Bones—					
Osteitis...	3	27	...	30	...
Caries	1	16	...	17	2
157. Diseases of Joints—					
Arthritis	3	89	4	92	3
Synovitis	...	28	...	28	1
158. Other Diseases of Bones or Organs of Locomotion	...	72	3	72	3
XI.—*Malformations*					
159. Malformations—					
Hydrocephalus	...	...	...	...	...
Hypospadias...	...	6	1	6	...
Spina Bifida, &.	...	...	...	...	...
Hare lip	...	1	...	1	
Total carried over	348	23,546	1,390	23,894	414

DISEASES	Remaining in Hospital at end of 1929	Yearly Total		Total cases treated	Remaining in Hospital at end of 1930
		Admissions	Deaths		
Brought forward	348	23,546	1,390	23,894	414
XII.—*Diseases of Infancy*					
160. Congenital Debility	...	47	40	47	...
161. Premature Birth...	...	50	28	50	...
162. Other affections of Infancy	6	155	22	161	8
163. Infant neglect (infants of three months or over)	...	...	...	...	...
XIII.—*Affections of Old Age*					
164. Senility	1	105	17	106	
Senile Dementia...	1	37	5	38	...
Other affections of of old age ...	...	3	..	3	...
XIV.—*Affections produced by External Causes*					
165. Suicide by Poisoning	...	10	...	10	...
166. Corrosive Poisoning (intentional) ...	...	...	...	...	...
167. Suicide by Gas Poisoning	...	2	...	2	...
168. Suicide by Hanging or Strangulation ...	...	...	...	...	...
169. Suicide by Drowning	...	...	...	...	...
170. Suicide by Firearms	...	...	...	...	...
171. Suicide by cutting or stabbing Instruments	...	...	...	...	...
172. Suicide by jumping from a height ...	...	...	...	...	...
173. Suicide by crushing	...	...	...	...	...
174. Other Suicides	...	...	...	...	...
175. Food Poisoning—					
Botulism	...	1	...	1	...
176. Attacks of poisoncus—					
Snaks Bite	...	...	...	...	...
Insect Bite	...	...	...	...	...
177. Other accidental Poisonings	...	17	...	17	...
178. Burns (by fire)	2	82	16	84	2
179. Burns (other than fire)	1	23	4	24	...
180. Suffocation (accidental)	...	...	...	...	...
181. Poisoning by Gas (accidental) ...	...	...	...	...	...
182. Drowning (accidental)	...	1	...	1	...
183. Wounds by Firearms, (war excepted) ...	...	2	...	2	...
184. Wounds by cutting or stabbing Instruments	4	378	2	382	7
(*b*) by blunt instruments... ...	11	700	7	711	
185. Wounds (by fall)	4	102	4	106	...
186. Wounds (in mines or Quarries) ...	...	...	...	...	...
187. Wounds (by machinery)	...	13	...	12	1
188. Wounds by crushing *e.g.* railway accidents,&c.)	...	45	1	45	...
189. Injuries inflicted by animals, Bites Kicks, etc.	...	35	...	35	3
190. Wounds inflicted on Active Service ...	...	...	...	...	...
191. Executions of civilians by belligerents ...	...	...	...	...	...
192. A.—Over fatigue	...	...	...	...	...
B.—Hunger or Thirst	...	...	...	...	...
193. Exposure to cold, Frost bite, &c. ...	...	...	...	..	...
194. Exposure to heat—					
Heatstroke	...	3	...	3	...
Sunstroke	...	...	...	...	...
195. Lightning Stroke	...	...	...	...	...
196. Electric Shock	...	1	..	1	...
197. Murder by Firearms	...	...	...	...	...
198. Murder by cutting or stabbing Instruments	...	...	...	...	...
199. Murder by other means ...	...	...	...	...	...
200. Infantile Murder (of an infant under one year)	...	...	...	...	...
201. A.—Dislocation	...	25	...	25	1
B.—Sprain	...	25	...	25	1
C.—Fracture	8	337	16	345	15
202. Other external Injuries	7	525	1	532	6
203. Death by Violence of unknown cause ...	...	...	...	...	...
Total carried over	393	26,270	1,553	26,663	468

DISEASES	Remaining in Hospital at end of 1929	Yearly Total		Total cases treated	Remaining in Hospital at end of 1930
		Admissions	Deaths		
Brought forward	393	26,270	1,553	26,663	468
XV.—*Ill-Defined Diseases*					
204. Sudden Deaths (cause unknown)—					
205. A.—Diseases not already specified or ill-defined—	20	292	4	312	28
Ascites	2	44	1	46	1
Œdema	...	10	...	10	...
Asthenia	...	53	...	53	...
Shock	...	11	11	11	...
Hyperpyrexia	...	...	...	...	...
Debility	...	5	...	5	...
B.—Malingering	2	88	...	90	1
Total	417	26,773	1,569	27,190	498
SUMMARY					
I.—Epidemic, Endemic and Infectious Diseases	86	7,311	385	7,397	143
II.—General Diseases not mentioned above ...	20	850	67	870	17
III.—Affections of the Nervous System and Organs of the Senses	17	927	31	944	19
VI.—Affections of the Circulatory System ...	15	1,002	86	1,017	15
V.—Affections of the respiratory System ...	40	1,810	263	1,850	25
VI.—Diseases of the Digestive System ...	48	5,692	323	5,740	63
VII.—Diseases of the Genito-Urinary System (*non-venereal*)	21	2,023	150	2,044	34
VIII.—Puerperal State	21	953	40	974	22
IX.—Affections of the Skin and Cellular Tissues	73	2,739	37	2,812	67
X.—Diseases of Bones and Organs of Locomotion (*other than Tuberculous*) ...	7	232	7	239	9
XI.—Malformations	...	7	1	7	...
XII.—Diseases of Infancy	6	252	90	258	8
XIII.—Affections of Old Age	2	145	22	147	1
XIV.—Affections produced by external Causes...	37	2,327	51	2,364	45
XV.—Ill-Defined Diseases	24	503	16	527	30
Total	417	26,773	1,569	27,190	498

Return of Births

	Number	Deaths
Born alive at term	524	25
Prematurely born	50	38
Still born	134	134
Total	708	197

Return of Surgical Operations

Operations	Number	Deaths
Operations :—		
Tumours	81	8
Evacuation of Abcesses ...	1,926	23
Operation on :—		
Blood vessels	5	2
Lymphatic Glands ...	112	2
Skin and Subcutaneous Tissues	412	2
Bones	179	7
Nerves	4	...
Joints	61	4
Muscles and Tendons ...	18	...
Skull and Brain ...	19	1
Eye	212	3
Ear	17	...
Head and Face	87	4
Chest	77	...
Abdominal Cavity ...	615	36
Spleen	4	2
Rectum and Anus ...	217	1
Urinary system	86	10
Male Generative Organs ...	343	6
Female Generative Organs ...	204	11
Amputation	116	4
Obstetric Operations... ...	77	4
Other Operations	1,145	5
Total	6,017	135

APPENDIX IX

Return of Diseases (*Out Patients*) for the Year 1930.

Diseases	Male	Female
	658	566
I.—*Epidemic, Endemic and Infectious Diseases*		
1. Enteric Group :—		
(*a*) Typhoid Fever	5	36
(*b*) Paratyphoid A.	...	...
(*c*) Paratyphoid B.	...	...
(*d*) Type not defined	1	...
2. Typhus	...	...
3. Relapsing Fever	1	1
4. Undulant Fever...	198	387
5. Malaria—	1,603	1,663
(*a*) Tertian and double tertian	17,201	18,597
(*b*) Quartan	5,942	7,340
(*c*) Aestivo-autumnal	758	1,046
(*d*) Cachexia...	1,640	1,630
(*e*) Blackwater	6	1
6. Smallpox—		
Alastrim	...	...
7. Measles	29	34
8. Scarlet Fever	...	...
9. Whooping Cough	2,902	2,931
10. Diphtheria	3	1
11. Influenza	7,928	9,202
12. Miliary Fever	...	...
13. Mumps	1	...
14. Cholera	...	...
15. Epidemic diarrhœa	173	213
16. Dysentery	12	9
(*a*) Amœbic	1,159	881
(*b*) Bacillary	257	229
(*c*) Undefined or due to other causes	737	555
17. Plague :—		
(*a*) Bubonic	...	...
(*b*) Pneumonic	...	...
(*c*) Septicæmic	...	...
(*d*) Undefined	...	...
Total carried over ...	40,556	44,756

Diseases	Male	Female
Brought forward	40,556	44,756
I.—*Epidemic Endemic and Infectious Diseases.*—(Contd.)		
18. Yellow Fever	...	...
19. Spirochætosis ictero-hæmorrhagica	...	...
20. Leprosy	6	1
21. Erysipelas	4	2
22. Acute Poliomyelitis	...	1
23. Encephalitis Lethargica	...	...
24. Epidemic Cerebro-spinal Fever	...	...
25. Other Epidemic Diseases—		
(*a*) Rubeola (German Measles)	...	...
(*b*) Varicella (Chicken-pox)	1	1
(*c*) Kala-azar	...	...
(*d*) Phlebotomus Fever	...	...
(*e*) Dengue	...	...
(*f*) Epidemic Dropsy	...	..
(*g*) Yaws	...	...
(*h*) Trypanosomiasis	...	...
26. Glanders	11	9
27. Anthrax	9	3
28. Rabies	1	...
29. Tetanus	1	...
30. Mycosis	...	...
31. Tuberculosis, Pulmonary and Pharyngeal	1,330	767
32. Tuberculosis of the Meninges or Central Nervous System	5	3
33. Tuberculosis of the Istestine or Peritoneum	...	...
34. Tuberculosis of the Vertebral Column	...	...
35. Tuberculosis of Bones and Joints	3	7
36. Tuberculosis of other organs—		
(*a*) Skin or Subcutaneous Tissue (Lupus)	2	1
(*b*) Bones	47	23
(*c*) Lymphatic System	...	...
(*d*) Genito-urinary	...	...
(*e*) Other Organs	69	2
37. Tuberculosis disseminated	...	...
(*a*) Acute	...	...
(*b*) Chronic	...	...
38. Syphilis—		
(*a*) Primary	105	40
(*b*) Secondary	92	63
(*c*) Tertiary	188	158
(*d*) Hereditary	24	49
(*e*) Period not indicated	599	308
39. Soft Chancre	296	4
40. A.—Gonorrhœa and its complications	1,309	154
B.—Gonorrhœal Ophthalmia	18	3
C.—Gonorrhœal Arthritis	19	12
D.—Gonorrhœal Venereum	11	...
41. Septicæmia	...	1
42. Other Infectious Diseases—	2	...
(*a*) Trypanosomiasis	...	...
(*b*) Filariosis	29	22
II.—General Diseases not mentioned above		
43. Cancer or other malignant Tumours of the Buccal Cavity	3	...
44. Cancer or other malignant Tumours of the Stomach or Liver	...	5
45. Cancer or other malignant Tumours of the Peritoneum, Intestines, Rectum	1	...
46. Cancer or other malignant Tumours of the Female Genital Organs	...	18
47. Cancer or other malignant Tumours of the Breast	...	1
48. Cancer or other malignant Tumours of the Skin	10	1
49. Cancer or other malignant Tumours or Organs not specified	2	...
50. Tumours non-malignant	6	3
51. Acute Rheumatism	1,368	1,455
52. Chronic Rheumatism	870	1,069
53. Scurvy (including Barlow's Disease)	...	...
54. Pellagra	..	1
55. Beri-Beri	6	1
56. Rickets	11	12
Total carried over	47,014	48,956

Diseases	Male	Female
Brought forward	47,014	48,956
II.—*General Diseases not mentioned above.*—(Contd)		
57. Diabetes (not including Insipidus)	67	50
58. Anæmia—	150	140
(a) Pernicious ...	171	581
(b) Other Anæmia and Chlorosis	636	1,015
59. Diseases of the Pituitary Body...	...	..
60. Diseases of the Thyroid Gland—	...	1
(a) Exophthalmic Goitre...	1	1
(b) Other diseases of the Thyroid Gland, Myxœdema	...	...
61. Diseases of the Para-Thyroid Glands	...	...
62. Diseases of the Thymus	...	...
63. Diseases of the Supra-Renal Glands	22	21
64. Diseases of the Spleen	134	109
66. Leukæmia—		
(a) Leukæmia	...	...
(b) Hodgkin's Diseases	...	...
66. Alcoholism	...	...
67. Chronic poisoning by mineral substances (lead mercury, &c.)	...	...
68. Chronic poisoning by organic substances (Morphia, Cocaine, &c.)	42	25
69. Other General Diseases	107	199
Auto-intoxication	1	...
Purpura Hæmorrhagica	1	1
Haemophilia	...	1
Diabetes Insipidus	12	34
III.—*Affections of the Nervous System and organs of the senses*		
70. Encephalitis (not including Encephalitis Lethargica)...	...	...
71. Meningitis (not including Tuberculous Meningitis or Cerebro-spinal Meningitis)	...	...
72. Locomotor Ataxia	12	15
73. Other affections of the Spinal Cord	61	43
74. Apoplexy	1	1
(a) Hæmorrhage	29	19
(b) Embolism	1	...
(c) Thrombosis	...	...
75. Paralysis—		
(a) Hemiplegia	47	42
(b) Other paralyses	36	22
76. General Paralysis of the Insane	...	...
77. Other forms of Mental Alienation	2	2
78. Epilepsy	191	217
79. Eclampsia, Convulsions (non-puerperal) 5 years or over	4	6
80. Infantile Convulsions	...	...
81. Chorea	78	69
82. A.—Hysteria	2	41
B.—Neuritis	115	135
C.—Neurasthenia	13	50
D.—Neuralgia	51	87
83. Cerebral Softening	11	10
84. Other affections of the nervous System, such as Paralysis Agitans	240	265
85. Affections of the Organs of Vision	35	26
(a) Diseases of the Eye	106	111
(b) Conjunctivitis	527	491
(c) Trachoma	1	1
(d) Tumours of the Eye...	12	11
(e) Other affections of the Eye	594	584
86. Affections of the Ear or Mastoid Sinus	504	508
IV.—*Affections of the Circulatory System*		
87. Pericarditis	31	14
88 Acute Endocarditis or Myocarditis	70	137
89. Angina Pectoris...	16	19
90. Other Diseases of the Heart—		
(a) Valvular...	18	14
Mitral	188	286
Aortic	21	24
Tricuspid	...	...
Pulmonary	...	..
(b) Myocarditis	55	72
Total carried over ...	51,430	54,456

Diseases	Male	Female
Brought forward	51,430	54,456
IV.—*Affections of the Circulatory System.*—(Contd.)		
91. Diseases of the Arteries—		
(*a*) Aneurism	6	13
(*b*) Arterio-Sclerosis	273	451
(*c*) Other diseases	99	136
92. Embolism or Thrombosis (non-cerebral)	...	...
93. Diseases of the Veins—		
Hæmorrhoids	209	82
Varicose Veins	17	22
Phlebitis	4	7
94. Diseases of the Lymphatic System	21	10
Lymphangitis	70	73
Lymphadenitis, Bubo (non-specific)	33	22
95. Hæmorrhage of undetermined cause	12	7
96. Other affections of the Circulatory System	47	49
V.—*Affections of the Respiratory System*		
97. Diseases of the Nasal Passages	4	...
Adenoids	12	8
Polypus	9	4
Rhinitis	41	65
Coryza	39	16
98. Affections of the Larynx—		
Laryngitis	98	110
99. Bronchitis	108	60
(*a*) Acute	2,037	2,073
(*b*) Chronic...	1,305	901
100. Broncho-Pneumonia	52	42
101. Pneumonia	181	112
(*a*) Lobar	39	10
(*b*) Unclassified	29	20
102. Pleurisy, Empyema	34	24
103. Congestion of the Lungs	1	2
104. Gangrene of the Lungs	...	...
105. Asthma	1,339	1,013
106. Pulmonary Emphysema	11	3
107. Other affections of the Lungs—		
Pulmonary Spirochætosis	99	76
VI.—*Diseases of the Digestive System*		
108. A.—Diseases of Teeth or Gums—		
Caries, Pyorrbæ, &c.	2,615	2,116
B.—Other affections of the Mouth	4	7
Stomatitis	255	229
Glossitis, &.	16	26
109. Affections of the Pharynx or Tonsils	...	3
Tosillitis	204	788
Pharyngitis	70	79
110. Affections of the Œsophagus	1	...
111. A.—Ulcer of the Stomach...	42	25
B.—Ulcer of Duodenum	6	...
112. Other affections of the Stomach	12	...
Gastritis	923	1,135
Dyspepsia...	2,148	2,304
113. Diarrhœa and Enteritis—		
Under two years	749	742
114. Diarrhœa and Enteritis—	72	42
Two years and over	1,965	1,538
Colitis	171	223
Ulceration	7	4
114a. Sprue	...	...
115. Ankylostomiasis	8,565	8,642
116. Diseases due to Intestinal Parasites—		
(*a*) Cestoda (Tænia)	...	...
(*b*) Trematoda (Flukes)	...	...
(*c*) Nematoda (other than ankylcstoma)—		
Ascaris	3,922	3,702
Trichocephalus dispar.	32	1
Trichina	...	...
Dracunculus	...	...
Strongylus	...	1
Oxyuris	186	308
(*d*) Coccidia	...	...
(*e*) Other parasites	220	259
(*f*) Unclassified	275	198
Total carried over	80,119	82,239

Diseases	Male	Female
Brought forward	80,119	82,239
VI.—*Diseases of the Digestive System.*—(Contd.)		
117. Appendicitis	106	96
118. Hernia	183	22
119. A.—Affections of the Anus, Fistula, &c. ...	127	25
B.—Other affections of the Intestines—	4	15
Enteroptosis	2	...
Constipation	811	950
120. Acute yellow atrophy of the Liver	15	9
121. Hydatid of the Liver	...	...
122. Cirrhosis of the Liver	41	22
(*a*) Alcoholic	...	...
(*b*) Other forms	...	...
123. Biliary Calculus	5	4
124. Other affections of the Liver—	1	...
Abscess	58	31
Hepatitis	193	162
Cholecystitis	42	62
Jaundice	29	31
125. Diseases of the Pancreas	...	...
126. Peritonitis (of unknown cause)	...	...
127. Other affections of the Digestive System ...	581	434
VII.—*Diseases of the Genito-urinary System* (*non-Venereal*)		
128. Acute Nephritis	506	321
129. Chronic	153	96
130. A.—Chyluria	59	32
B.—Schistosomiasis	85	30
131. Other affections of the Kidneys—		
Pyelitis, etc.	13	
132. Urinary Calculus	2	
133. Diseases of the Bladder—		
Cysititis	333	240
134. Diseases of the Urethra—		
(*a*) Stricture	35	2
(*b*) Other	22	...
135. Diseases of the Prostate—		
Hypertrophy	...	...
Prostatitis...	3	...
136. Diseases (non-Venereal) of the Genital Organs of Man—	30	...
Epididymitis	9	...
Orchitis	186	...
Hydrocele	179	...
Ulcer of Penis	18	...
137. Cysts or other non-malignant Tumours of the Ovaries	...	10
138. Salpingitis—	...	160
Abscess of the Pelvis	...	...
139. Uterine Tumours (non-malignant)	...	13
140. Uterine Hæmorrhage non-puerperal	...	207
141. A.—Metritis	...	137
B.—Other affections of the Female Genital Organs—	...	160
Displacements of Uterus	...	28
Amenorrhœa	...	325
Dismenorrhœa	...	189
Leucorrhœa	...	634
142. Diseases of the Breast (non-puerperal)—		
Mastitis	...	80
Abscess	...	263
VIII.—*Puerperal State*		
133. A.—Normal Labour	...	315
B.—Accidents of Pregnancy—		
(*a*) Abortion	...	42
(*b*) Ectopic Gestation	...	...
(*c*) Other accidents of Pregnancy	...	140
144. Puerperal Hæmorrhage	..	1
145. Other accidents of Parturition	...	1
146. Puerperal Septicæmia	...	2
147. Phlegmasia Dolens	...	...
148. Puerperal Eclampsia	...	...
149. Sequelæ of Labour	...	...
150. Puerperal affections of the Breast	...	9
Total carried over	83,950	87,561

Diseases	Male	Female
Brought forward	83,950	87,561
IX.—*Affections of the Skin and Cellular Tissues*		
Phagedemic ulcers	15	2
151. Gangrene	14	1
152. Boil	64	56
Carbuncle	231	125
153. Abscess	212	115
Whitlow	198	159
Cellulitis	2,566	1,608
154. A.—Tinea	5	2
B.—Scabies	2,365	1,759
155 Other Diseases of the Skin	282	216
Erythema	153	128
Urticaria	49	44
Eczema	639	659
Herpes	58	62
Psoriasis	70	47
Elephantiasis	13	17
Myiasis	...	..
Chigœs	...	...
Cutaneous Leishmaniasis	...	...
Ulcers	94	30
Pediculus Pubis	110	...
Ringworm	2	1
Impetigo	5	5
X.—*Diseases of the Bones and Organs of Locomotion (other than Tuberculosis)*		
156. Diseases of the Bones—		
Osteitis	15	14
157. Diseases of Joints—		
Arthritis	137	80
Synovitis	20	12
158. Other Diseases of Bones or Organs of Locomotion	55	19
XI.—*Malformations*		
159. Malformations—		
Hydrocephalus	4	...
Hypospadios	...	...
Spina Bifida, &c.	...	...
XII.—*Diseases of Infancy*		
160. Congenital Debility	55	48
161. Premature Birth	...	1
162. Other affections of Infancy	105	81
163. Infant neglect (infants of three months or over)	2	2
XIII.—*Affections of Old Age*		
164. Senility	105	105
Senile Dementia	84	46
Debility	53	97
XIV.—*Affections produce by External Causes*		
165. Suicide by Poisoning	...	1
166. Corrosive Poisoning (intentional)	...	...
167. Suicide by Gas Poisoning	...	...
168. Suicide by Hanging or Strangulation	...	...
169. Suicide by Drowning	..	...
170. Suicide by Firearms	...	...
171. Suicide by cutting or stabbing Instruments	...	...
172. Suicide by jumping from a height	...	...
173. Suicide by crushing	...	...
174. Other Suicides	...	...
175. Food Poisoning—		
Botulism	...	...
176. Attacks of poisonous—		
Snake Bite	...	...
Insect Bite	1	...
177. Other accidental Poisonings	1	...
178. Burns (by fire)	51	26
179. Burns (other than fire)	14	10
180. Suffocation (accidental)	...	..
181. Poisoning by Gas (accidental)	1	...
182. Drowning (accidental)	...	...
183. Wounds (by Firearms, war excepted)	3	...
184. Wounds (by cutting or stabbing Instruments)	560	223
Total carried over	92,361	93,362

Disease		Male	Female
	Brought forward	92,361	93,362
	XIV.—*Affections produced by External Causes* (*Contd*)		
185.	Wounds (by fall)	390	111
186.	Wounds (in mines or Quarries)	...	...
187.	Wounds (by machinery)	4	2
188.	Wounds (crushing *e.g.* railway accidents, &c.)	4	...
189.	Injuries inflicted by animals, Bites, Kicks, etc.	125	23
190.	Wounds inflicted on Active Service	...	...
191.	Executions of civilians by belligerents	...	...
192.	A.—Over fatigue	...	...
	B.—Hunger or Thirst	4	...
193.	Exposure to cold, Frost bite, &c.	...	...
194.	Exposure to heat—		
	Heatstroke	...	...
	Sunstroke	...	1
195.	Lightning Stroke	...	...
196.	Electric Shock	...	...
197.	Murder by Firearms	..	...
198.	Murder by cutting or stabbing Instruments	...	...
199.	Murder by other means	...	...
200.	Infanticide (Murder of an infant under one year)	...	...
201.	A.—Dislocation	9	11
	B.—Sprain	35	25
	C.—Fracture	120	53
202.	Other external Injuries	1,898	425
203.	Death by Violence of unknown cause	...	...
	XV.—*Ill-Defined Diseases*		
204.	Sudden Deaths (cause unknown)—		
205.	A.—Diseases not already specified or ill-defined—	15	27
	Giddiness	2	4
	Ascites	56	36
	Oedema	55	11
	Asthenia	78	6
	Shock	8	5
	Hyperpyrexia	2	3
	Headache	42	3
	B.—Malingering	141	189
	XVI.—*Diseases Unclassefied*		
	Total	95,349	94,297

SUMMARY

	Male	Female
I.—Epidemic, Endemic and Infectious Diseases	44,737	4,6390
II.—General Diseases not mentioned above	3,621	4,744
III.—Affections of the Nervous Systems and Organs of the Senses	2,673	2,756
IV.—Affections of the Circulatory System	1,190	1,438
V.—Affections of the respiratory System	5,438	4,539
VI.—Diseases of the Digestive System	24,658	24,235
VII.—Diseases of the Genito-Urinary System (*non-venereal*)	1,633	2,949
VIII.—Puerperal State	...	510
IX.—Affections of the Skin and Cellular Tissues	7,145	5,036
X.—Diseases of Bones and Organs or Locomotion (*other than Tuberculosis*)	227	125
XI.—Malformations	4	...
XII.—Diseases of Infancy	162	132
XIII.—Affections of Old Age	242	248
XIV.—Affections produced by external Causes	3,220	911
XV.—Ill-Defined Diseases	258	95
XVI.—Diseases, unclassified	141	189
Total	95,349	94,297

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